

Comparative Study on the Nomenclature of the Nerves of the Forearm and Forefoot of the Domestic Animals

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A review of the textbooks of the anatomy of domestic animals, applied anatomy, operative surgery and various other publications pertaining to these regions, both in English and foreign literature, indicate that a variety of terms which are often very confusing are used to designate nerves, especially in the digital region. Therefore, the purpose of this paper is to summarize and compare the various terminologies of the nerves of the forearm (antebrachium) and forefoot (manus) in our domestic animals.

The classical studies concerning the nerve supply of the forelimb in domestic animals are those by Sussdorf²⁰ and Reimers.²¹ These early studies essentially describe the gross branchings of the nerves supplying the region.

The nerves which supply the forearm and forefoot in the domestic animals arise from the brachial plexus (Plexus brachialis) in the proximal part of the forelimb. They include: the ulnar nerve (N. ulnaris); the median nerve (N. medianus); the Ramus muscularis distalis of the musculocutaneous nerve (N. musculocutaneus); the radial nerve (N. radialis); and the Nn. cutanei antebrachii craniales of the axillary nerve (N. axillaris).

Before discussing the principal branches of the various nerve trunks supplying the forearm and forefoot in domestic animals, we quote the definition of the following terms as recommended by the World Association of Veterinary Anatomists (WAVA).¹⁹ "Palmaris"—Palma (Cicero et al.) designates the palm of the hand. "Vola," the hollow, refers to the

palm of the hand or sole of the foot. In most of the Veterinary Anatomy books, especially in English literature, the term "volaris" instead of "palmaris" is frequently used. As both the terms refer to the same anatomical area and for the sake of consistency with human anatomy, the term "palmaris" will be used in this article, wherever applicable.

I. THE ULNAR NERVE (N. ulnaris) (Table I)

At a variable level within the distal half of the arm, the ulnar nerve releases a long, slender cutaneous branch. In veterinary anatomy, it has been called by different terms, in different species by various authors (Table I). In the domestic animals, this cutaneous branch of the ulnar nerve essentially supplies the caudal aspect and the adjoining segments of the medial and lateral surfaces of the forearm.

As the Nomina Anatomica Veterinaria¹⁹ restricts the use of "caudalis" on the limbs proximal to the carpus and tarsus, we propose to designate this cutaneous branch of the ulnar nerve as the N. cutaneus antebrachii caudalis.

The two terminal branches of the ulnar nerve in man are designated as the Ramus dorsalis n. ulnaris and Ramus palmaris n. ulnaris.¹⁸ For the sake of simplicity and conformity with the nomenclature of human anatomy, we also propose to name these terminal branches as the Ramus dorsalis n. ulnaris and Ramus palmaris n. ulnaris. However, it will be evident from

Table I that different terms are applied to these terminal branches of the ulnar nerve by various authors within the same species, and also between different species.

In polydactyl animals, the *Ramus dorsalis n. ulnaris* continues as the *Nn. digitales dorsales* in man;¹⁸ as the *N. digitalis dorsalis communis* IV which splits into the *Nn. digitales IV et V dorsales proprii* in the ruminants; and the *N. digiti V dorsalis proprius* and *N. digitalis dorsalis communis* IV (after receiving the *Ramus lateralis* of the *N. digitalis dorsalis communis* III) in the pig. The latter divides into the *Nn. digitales IV et V dorsales proprii*. It becomes the *N. digiti V dorsalis proprius* in the dog and the *N. digiti V dorsalis proprius* and *N. digitalis dorsalis communis* IV (after receiving a branch of the *Ramus superficialis* of the *N. radialis*) in the cat. The latter divides into the *Nn. digitales dorsales proprii*.

In order to simplify the nomenclature in the region of the "manus," we propose to drop the terms "metacarpicus," "metacarpalis," "metacarpeus," etc. This change is, however, in accordance with the *Nomina Anatomica*.¹⁸

Similarly, the *Ramus palmaris n. ulnaris*, in man, divides into the *Ramus superficialis* and *Ramus profundus*. Later, the former (*Ramus superficialis*) becomes the *Nn. digitales palmares communes* which split into the *Nn. digitales palmares proprii*.¹⁸

In the domestic animals, the *Ramus palmaris n. ulnaris* also divides into the *Ramus superficialis* and *Ramus profundus*. The *Ramus superficialis* (after receiving the *Ramus lateralis* of the *N. palmaris lateralis*) becomes the *N. digitalis palmaris communis* IV, which splits into the *Nn. digitales IV et V palmares proprii* in the ruminants. In the pig, it divides into the *N. digiti V palmaris proprius* and *N. digiti IV palmaris proprius*. In the dog, the *Ramus superficialis* gives rise to the *N. digiti V palmaris proprius* and *N. digitalis palmaris communis (superficialis)* IV (which receives a contribution from the *Ramus profundus*). The latter divides into the *Nn. digitales IV et V palmares proprii*. In the cat, the *Ramus superficialis*

at first splits into the *N. digiti V palmaris proprius* and *N. digitalis palmaris communis (superficialis)* IV (after receiving contributions from the *N. medianus*) which later divides into the *Nn. digitales IV et V palmares proprii*.

In the species mentioned above, the *Ramus profundus* is expended entirely inside the *M. interosseus medius*, except in the dog. In the latter species, the *Ramus profundus* divides into the *Nn. digitales palmares communes (profundi)* II, III et IV. After receiving the *Nn. digitales palmares communes (superficiales)* II et III of the *N. medianus* it becomes the *Tr. palmares communes* II et III. The latter divide into the *Nn. digitales palmares proprii*.

In perissodactyl animals (e.g., horse) the ulnar nerve also divides into the *Ramus dorsalis n. ulnaris* and *Ramus palmaris n. ulnaris*. The *Ramus dorsalis n. ulnaris* furnishes twigs to the fascia and skin on the dorsolateral aspect of the carpus and the dorsolateral aspect of the metacarpus to the fetlock joint.

The *Ramus palmaris n. ulnaris* at first joins the *N. palmaris lateralis* and then, similar to other animals, divides into a *Ramus superficialis* and *Ramus profundus*. The *Ramus superficialis* receives a communicating branch from the *N. palmaris medialis* and subsequently divides into the *N. digitalis dorsalis lateralis* and *N. digitalis palmaris lateralis*. Occasionally, an inconstant *N. digitalis intermedius* is found.

II. THE MEDIAN NERVE (*N. medianus*) AND MUSCULOCUTANEOUS NERVE (*N. musculocutaneus*) (Table II)

The *Ramus musculocutaneus* of the median nerve should be regarded as the *Ramus muscularis distalis* of the musculocutaneous nerve (*N. musculocutaneus*) for comparative reasons. In the cat, this branch does not associate with the median nerve in its distal course. We propose to call its cutaneous branch the *N. cutaneus antebrachii medialis* which corresponds to the *N. cutaneus antebrachii lateralis* in man.

For the sake of uniformity with human anatomy and for comparative reasons, we propose to designate the terminal branches of the median nerve as the medial and lateral palmar nerves.

In man, the *Ramus palmaris n. mediani* gives off the *Ramus communicans cum n. ulnari* and later forms the *Nn. digitales palmares communes*. The latter split into the *Nn. digitales palmares proprii*.¹⁸

In polydactyl animals, especially in the ox and sheep, the *N. palmaris medialis* divides into a *Ramus medialis* (*N. digitalis palmaris communis II*) and *Ramus interdigitalis*. The former descends as the *Nn. digitales II et III palmares proprii*, while the latter continues as the *N. digiti III palmaris proprius*. In the goat, the *N. palmaris medialis* usually divides into the *Ramus medialis* (*N. digitalis palmaris communis II*) and *N. digitalis palmaris communis III*. The former nerve extends as the *Nn. digitales II et III palmares proprii*, whereas the latter divides into the *Nn. digitales III et IV palmares proprii*. In the pig, the *N. palmaris medialis* divides into the *Ramus medialis* and *N. digitalis palmaris communis II*. The former nerve continues as the *N. digiti II palmaris proprius*, while the latter splits into the *Nn. digitales II et III palmares proprii*. In the dog and cat, the *N. palmaris medialis* gives off, at first, the *N. digiti I palmaris proprius* and then continues as the *Nn. digitales palmares communes (superficiales) I et II*. The latter divide into the *Nn. digitales palmares proprii*.

The *N. palmaris lateralis*, in the ruminants, divides into a *Ramus interdigitalis* and *Ramus lateralis* (*N. digitalis palmaris communis IV*). The former continues as the *N. digiti IV palmaris proprius*, while the latter joins the *Ramus superficialis* of the *N. ulnaris* and descends as the *Nn. digitales IV et V palmares proprii*. However, it has been pointed out that in the goat, and occasionally also in the ox and sheep, the *Nn. digitales III et IV palmares proprii* arise from the terminal division of the *N. digitalis palmaris communis III*, given off of the *N. palmaris medialis*. In the pig, the *N. palmaris lateralis* gives off the *Ramus lateralis* and subsequently de-

scends as the *N. digitalis palmaris communis III*. The former extends as the *N. digiti V palmaris proprius*, while the latter, following division, gives rise to the *Nn. digitales III et IV palmares proprii*. In the dog and cat, the *N. palmaris lateralis* continues as the *N. digitalis palmaris communis (superficialis) III* which finally splits into the *Nn. digitales III et IV palmares proprii*. Besides, in the cat, the *N. palmaris lateralis* gives off a *Ramus communicans cum ramo superficiali (e nervo ulnari)*.

In the horse, the *N. palmaris medialis* gives off a *Ramus communicans*. It divides finally into the *N. digitalis dorsalis medialis* and *N. digitalis palmaris medialis*. Sometimes, a *N. digitalis intermedius* is also encountered.

The *N. palmaris lateralis* joins the *Ramus palmaris n. ulnaris* above the carpus. The above nerve trunk divides into the *Ramus superficialis* and *Ramus profundus*. The former gives rise to the *N. digitalis dorsalis lateralis* and *N. digitalis palmaris lateralis* with an inconstant *N. digitalis intermedius*. According to Rooney,²² Dobberstein and Koch,⁵ and Koch¹⁰ the *Ramus profundus* of the *N. palmaris lateralis* furnishes the *M. interosseus medius* and finally continues as the *Nn. metacarpici volares profundi lateralis et medialis*, which we propose to designate as the *Nn. digitales palmares profundi*.

It will be evident from Table II that the medial and lateral palmar nerves, in some veterinary works, are frequently termed "plantar" nerves, which is an unfortunate misnomer.

III. THE RADIAL NERVE (*N. radialis*) (Table III)

The radial nerve divides into the *Ramus superficialis* and *Ramus profundus*, in the neighborhood of the elbow joint. In man, the former (*Ramus superficialis*) gives off the *Ramus communicans ulnaris* and *Nn. digitales dorsales*, whereas the *Ramus profundus* releases the *N. interosseus [antebrachii] posterior*.¹⁸

These terminal branches are often differently designated by various authors in veterinary anatomical literature. The ra-

dial nerve, before its division, detaches a variable number of cutaneous twigs which ramify in the fascia and skin in the region of the forearm and are, therefore, named the Nn. cutanei antebrachii n. radialis. The Ramus superficialis of the N. radialis also releases several twigs during its distal course which furnish innervation to the fascia and skin of the forearm. In order to differentiate the cutaneous branches arising directly from the N. radialis itself, from that of the Ramus superficialis of the N. radialis, we propose to designate the latter as the N. cutaneus antebrachii lateralis, because it indicates clearly the area of innervation in the region of the forearm and will enable us to differentiate here the other cutaneous supplies from the axillary and musculocutaneous nerves. The other branch of the radial nerve will be named the Ramus profundus in the usual way.

In polydactyl animals, as the ox, the Ramus superficialis exchanges fibers with the N. cutaneus antebrachii medialis of the Ramus muscularis distalis n. musculocutanei. In the ruminants, it finally divides into the Ramus medialis (N. digitalis dorsalis communis II) and N. digitalis dorsalis communis III. The former terminates as the Nn. digitalis II et III dorsales proprii, while the latter descends as the Nn. digitales III et IV dorsales proprii.

In the pig and carnivores (e.g., dog, cat) the superficial branch of the radial nerve is distinctly divisible into medial and lateral branches below the carpus and, therefore, they will be named the Ramus medialis and Ramus lateralis.

The Ramus lateralis, in the pig, at first gives off the N. digitalis dorsalis communis III which divides into the Nn. digitales III et IV dorsales proprii. Its continuation joins the Ramus medialis of the Ramus dorsalis n. ulnaris to constitute the N. digitalis dorsalis communis IV. The latter terminates as the Nn. digitales IV et V dorsales proprii. The Ramus medialis divides into the N. digiti II dorsalis proprius and N. digitalis dorsalis communis II which descends as the Nn. digitales II et III dorsales proprii.

In the dog, the Ramus lateralis of the

superficial branch gives off the Nn. digitales dorsales communes II, III et IV which subsequently divide and descend as the Nn. digitales dorsales proprii. The Ramus medialis essentially gives rise to the N. digiti I dorsalis proprius and N. digitalis dorsalis communis I which split into the N. digiti I dorsalis proprius and N. digiti II dorsalis proprius.

In the cat, the Ramus lateralis gives off the Nn. digitales dorsales communes II et III which terminate as the Nn. digitales dorsales proprii. Moreover, the N. digitalis dorsalis communis II gives off a Ramus communicans to the Ramus medialis to form the N. digiti II dorsalis proprius, whereas the N. digitalis dorsalis communis III releases a Ramus communicans to the Ramus dorsalis n. ulnaris to constitute the N. digitalis dorsalis communis IV. The Ramus medialis gives off the N. digiti I dorsalis proprius and N. digitalis dorsalis communis I which (after receiving the Ramus communicans from the N. digitalis dorsalis communis II) divide into the N. digiti I dorsalis proprius and N. digiti II dorsalis proprius.

In the horse, the Ramus superficialis does not usually extend beyond the carpus. However, Grau⁷ and Nickel,¹⁷ described it as ramifying in the skin over the muscular bellies of the Mm. extensor digitalis communis and lateralis and, therefore, in the middle of the lateral aspect of the forearm. But Tagand and Barone,²⁷ alleged that the cutaneous branch of the radial nerve was distributed to the skin of the external surface of the forearm, the craniolateral surface of the carpus and even of the metacarpus.

In the above-mentioned species, the Ramus profundus primarily supplies the Rami musculares to the extensors of the carpus and digit(s).

While renaming the digital terminations of the principal branches of the ulnar, median, and radial nerves in various species of polydactyl animals, one should be cognizant of the fact that the medial and lateral accessory digits or "dew-claws" are in reality the diminutive (or rudimentary) representatives of the 2nd and 5th digits, respectively. Due to their palmar displace-

ment, there is also a change in the disposition of the nerves supplying the area. In English literature, terms like "axial" and "abaxial" are often used to signify the dorsal and palmar digital nerves. But, in reality, both the medial and lateral dorsal (or palmar) digital nerves are "axial" instead of "abaxial" nerves, because their relationship has changed due to the palmar migration of the 2nd and 5th digits. Therefore, such terms are very confusing and should be abandoned because they convey the wrong conception. Instead, they should be renamed as "proper" nerves which is in conformity with the *Nomina Anatomica*.¹⁸ In order to avoid further complications in renaming these proper digital nerves, we propose to insert the Roman numeral of the digit along with the respective nerve.

IV. THE AXILLARY NERVE

(*N. axillaris*) (Table IV)

The cutaneous branch of the axillary nerve is called the *N. cutaneus brachii lateralis* in man.¹⁸ According to Gray,⁹ "the upper lateral cutaneous nerve of the arm supplies the skin over the lower part of the deltoid and the skin covering the upper part of the long head of the triceps" muscles (figs. 964, 965, page 1159).

In veterinary literature, in order to strictly follow the human nomenclature, many veterinary anatomists have ignored the fact that the cutaneous branches of the axillary nerve also extend a variable distance beyond the elbow joint and, in reality, to the region of the forearm to the *Regio carpi dorsalis* in various domestic animals. This distribution below the elbow joint has been mentioned by several authors. Therefore, we feel that these filaments, in order to differentiate them from that of the *N. cutaneus brachii lateralis*, according to their disposition in the forearm, should be named the *Nn. cutanei antebrachii craniales* in agreement with the subcommittee's proposals on the *Sistema nervosum periphericum* of the NAV, 1963.

SUMMARY

A review of textbooks and various publications indicates disagreement and incon-

sistency in the terminology used for designating the main branches of the ulnar, median, radial and cutaneous branches of the axillary and musculocutaneous nerves in the region of the forearm and forefoot in various domestic animals. Terms recommended by the *Nomina Anatomica*, 3rd edition, 1966, are used whenever possible in order to develop a uniform and consistent nomenclature applicable to the comparative nomenclature of the nerves of the forearm and forefoot of the domestic animals.

TABLE I

TERMINOLOGY APPLIED TO THE MAIN BRANCHES OF THE ULNAR NERVE (*N. ulnaris*) IN THE REGION OF FOREARM AND FOREFOOT IN VARIOUS DOMESTIC ANIMALS INCLUDING MAN:

A. HORSE

Nomina Anatomica, 1966 (Man)

Ramus dorsalis n. ulnaris
Nn. digitales dorsales
Ramus palmaris n. ulnaris
Ramus superficialis
Nn. digitales palmares communes
Nn. digitales palmares proprii

Ramus profundus

Chauveau and Arloing, 1902 (English ed.)

Internal brachial cutaneous nerve
Cutaneous branch
External plantar nerve

McFadyean, 1903

Cutaneous branch
External plantar nerve
Anterior branch
Middle branch
Posterior branch

Bradley, 1920

Ramus cutaneus volaris
Ramus superficialis
Ramus profundus
N. volaris lateralis
Ramus volaris
Ramus dorsalis
Deep branch

Reimers, 1925

N. cutaneus antebrachii proprius
Ramus dorsalis
Ramus volaris
Ramus superficialis
(N. volaris lateralis)
Ramus dorsalis
Ramus volaris
Ramus profundus

Ellenberger and Baum, 1943

N. cutaneus antebrachii caudalis
Ramus dorsalis s. N. dorsalis manus
Ramus volaris
Ramus (volaris) superficialis
Ramus (volaris) profundus

Zimmerl, 1949

Palmar cutaneous nerve
Cutaneous branch
Anastomotic branch
Lateral palmar nerve
Anterior digital nerve
Middle digital nerve
Posterior digital nerve
Deep palmar nerve

Bruni and Zimmerl, 1951
 Palmar cutaneous nerve
 Superficial or subcutaneous branch
 Deep branch
 Lateral palmar nerve or external collateral of the "shin" bone
 Anterior branch
 Middle branch
 Posterior branch
 Deep palmar branch

Sisson and Grossman, 1953
 Ramus cutaneous volaris
 Ramus superficialis
 Ramus profundus

Rooney, 1956
 Cutaneous branch
 (N. cutaneus antebachii caudalis)
 Dorsal branch
 Volar branch

Dobberstein and Koch, 1958
 N. cutaneus antebachii caudalis
 Ramus dorsalis
 Ramus volaris
 Ramus superficialis
 (N. volaris lateralis)
 Ramus dorsalis
 Ramus volaris
 Ramus profundus

Tagand and Barone, 1964
 Internal cutaneous brachial nerve
 (N. cutaneus antebachii volaris)
 Ramus dorsalis manus
 External palmar nerve
 (N. volaris lateralis)
 Ramus dorsalis
 Ramus intermedius
 Ramus volaris s. N. digitalis palmaris proprius
 Deep palmar (Ramus volaris profundus)

Koch, 1965
 N. cutaneus antebachii caudalis
 Ramus dorsalis
 Ramus volaris

Ghoshal and Getty, 1967
 N. cutaneus antebachii caudalis
 Ramus dorsalis n. ulnaris
 Ramus palmaris n. ulnaris
 Ramus palmaris n. ulnaris (+ N. palmaris lateralis)
 Ramus superficialis
 N. digitalis dorsalis lateralis
 N. digitalis palmaris lateralis
 N. digitalis intermedius (inconstant)
 Ramus profundus

B. RUMINANTS

Chauveau and Arloing, 1902 (English ed.) (Ruminants)
 External plantar nerve or interosseous palmar of the second space
 External collateral nerve of the outer digit (+ external plantar) and ramuscles to ergot

Reimers, 1925 (Ox, Sheep & Goat)
 N. cutaneus antebachii proprius
 Ramus dorsalis
 N. digiti IV dorsalis lateralis
 Ramus volaris
 Ramus superficialis
 N. digiti IV volaris lateralis
 Ramus profundus

Ellenberger and Baum, 1943 (Ruminants)
 N. cutaneus antebachii caudalis
 Dorsal (superficial) branch
 N. digitalis dorsalis proprius
 Volar (deep) branch
 Ramus superficialis
 N. digiti IV volaris ulnaris
 Ramus profundus

Bruni and Zimmerl, 1951 (Ruminants)
 Subcutaneous branch
 Lateral dorsal digital nerve of the 4th digit and dorsal digital of the 5th digit
 Deep or lateral palmar
 Lateral palmar digital nerve of the 4th digit (+ medial palmar) and lateral palmar digital nerve of the 5th digit

Habel, 1950-51 (Ox)
 Dorsal branch
 Abaxial dorsal nerve of the 4th digit
 Volar branch (+ lateral branch of median nerve)
 Abaxial volar nerve of the 4th digit

Langer and Nickel, 1953 (Ox)
 N. cutaneus antebachii proprius
 Ramus dorsalis
 N. metacarpicus dorsalis lateralis
 N. digiti IV dorsalis lateralis
 Ramus volaris
 Ramus volaris superficialis
 Ramus volaris profundus

Sisson and Grossman, 1953 (Ox)
 Dorsal (or superficial) branch
 Lateral dorsal digital nerve
 Volar (or deep) branch
 Continuation of above (+ lateral branch of median nerve)
 Lateral volar digital nerve
 (N. digitalis lateralis digiti IV)

Schreiber, 1956 (Ox)
 N. cutaneus antebachii caudalis
 N. dorsalis manus
 N. digiti IV dorsalis lateralis
 Ramus superficialis
 (+ R. lateralis of lateral volar nerve)
 N. volaris digiti IV lateralis
 Ramus profundus

Dobberstein and Koch, 1958 (Ox)
 Ramus dorsalis
 Ramus volaris

McLeod, 1960 (Ox)
 Posterior cutaneous nerve of the forearm
 Superficial branch
 Superficial lateral volar nerve
 Lateral dorsal abaxial digital nerve
 Deep branch
 Deep lateral metacarpal nerve
 (+ lateral branch of medial volar)
 Lateral volar abaxial digital nerve

May, 1964 (Sheep)
 N. cutaneus volaris
 Dorsal or superficial branch
 N. digitalis dorsalis abaxialis
 Volar or deep branch
 Continuation of above
 (+ branch from median)
 N. digitalis volaris abaxialis

Koch, 1965 (Ox)
 Ramus dorsalis
 Ramus volaris
 Ramus volaris superficialis (+ N. medianus)
 N. digiti quarti volaris lateralis
 Ramus volaris profundus

Ghoshal and Getty, 1967 (Ruminants)
 N. cutaneus antebachii caudalis
 Ramus dorsalis n. ulnaris
 N. digitalis dorsalis communis IV
 Nn. digitales IV et V dorsales proprii
 Ramus palmaris n. ulnaris

Ramus superficialis (+ Ramus lateralis of N. palmaris lateralis)
 N. digitalis palmaris communis IV
 Nn. digitales IV et V palmares proprii
 Ramus profundus

C. PIG

Chauveau and Arloing, 1902 (English ed.)
 Dorsal collateral nerves of the external digits
 Collateral of the external digit

Reimers, 1925
 N. cutaneus antebachii proprius
 Ramus dorsalis
 N. dig. dors. V. lateralis
 N. dig. dorsalis communis IV
 (+ Ramus superficialis of N. radialis)
 N. dig. IV dors. lateralis
 N. dig. dors. V. medialis

- Ramus volaris
 Ramus superficialis
 N. dig. V vol. lateralis
 N. volaris dig. communis IV
 N. dig. vol. IV lateralis
 N. dig. vol. V medialis
 Ramus profundus
- Ellenberger and Baum, 1943*
 N. cutaneus antebrachii caudalis
 Ramus dorsalis s. N. dorsalis manus
 N. dors. digiti V ulnaris
 N. metacarpicus (or digitalis) dors. communis IV
 (+ Ramus superficialis of N. radialis)
 Nn. digitales dorss. proprii
 Ramus volaris
 Ramus (vol.) superficialis
 N. vol. digiti V ulnaris
 N. digitalis vol. communis IV (+ branch of N. med.)
 Nn. digitales voll. proprii
 Ramus (vol.) profundus
- Bruni and Zimmerl, 1951*
 Dorsal branch
 Dorsal lateral digital of the 5th digit
 Other branch (+ lateral terminal of radial nerve)
 Medial dorsal of the 5th digit
 Lateral dorsal of the 4th digit
 Palmar branch (Lateral palmar nerve)
 Lateral palmar digital of the 5th
 Lateral palmar digital of the 4th
 (+ anastomotic branch of the medial dorsal digital of the 4th)
 Dorsal digital
 Volar digital
 Deep palmar
- Sission and Grossman, 1953*
 Dorsal branch
 (+ cutaneous branch of radial nerve)
 Dorsal common digital nerves
 Dorsal proper digital nerves
 (Lateral) volar proper digital nerves of the 4th and 5th digits
- Schneider and Zintzsch, 1962*
 N. cutaneus antebrachii caudalis
 Ramus dorsalis
 N. digitalis dorsalis communis IV
 Ramus volaris
 Ramus superficialis
 N. digitalis volaris communis IV
 Ramus profundus
- Ghoshal and Getty, 1967*
 N. cutaneus antebrachii caudalis
 Ramus dorsalis n. ulnaris
 N. digiti V dorsalis proprius
 N. digitalis dorsalis communis IV
 (+ Ramus lateralis of N. digitalis dorsalis communis III)
 Nn. digitales IV et V dorsales proprii
 Ramus palmaris n. ulnaris
 Ramus superficialis
 N. digiti V palmaris proprius
 N. digiti IV palmaris proprius
 Ramus profundus
- D. DOG**
- Chauveau and Arloing, 1902 (English ed.)*
 Dorsal branch
 External dorsal collateral nerve of small digit
 Palmar branch
 External collateral palmar of the auricularis
- Reimers, 1925*
 N. cutaneus antebrachii proprius
 Ramus dorsalis
 N. digiti V dorsalis ulnaris
 Ramus volaris
 Ramus superficialis
 N. metacarpeus volaris V
 N. digiti V volaris ulnaris
 N. metacarpeus volaris superficialis IV
 (+ N. metacarpeus volaris profundus IV) =
 N. digitalis volaris communis IV
 Nn. digitales volares proprii
- Ramus profundus
 Nn. metacarpei volares profundi II, III et IV
 (+ Nn. metacarpei volares superficiales II et III of N. medianus and N. metacarpeus volaris profundus IV from the Ramus superficialis of N. ulnaris)
 Nn. digitales volares communes II, III et IV
- Bradley and Grahame, 1943*
 Ramus cutaneus volaris
 Dorsal ramus
 N. dorsalis digiti V
 Volar ramus
 Ramus superficialis
 N. volaris digiti V
 N. metacarpeus volaris superficialis IV
 (+ branch of Ramus profundus)
 Ramus profundus
 Nn. metacarpei volares profundi II, III et IV
 (+ superficial branches of median nerve)
 Nn. digitales volares communes II, III et IV
 Nn. digitales volares proprii
- Ellenberger and Baum, 1943*
 N. cutaneus antebrachii caudalis
 Ramus dorsalis s. N. dorsalis manus
 N. dorsalis digiti V ulnaris
 Ramus volaris
 Ramus (vol.) superficialis
 N. volaris digiti V ulnaris
 N. metacarpicus volaris superficialis IV
 (+ N. metacarpicus volaris profundus IV) =
 N. digitalis volaris communis IV
 Nn. digitales volares proprii
 Ramus (vol.) profundus
 Nn. metacarpi volares profundi II, III et IV
 (+ Nn. metacarpi volares superficiales)
 Nn. digitales volares proprii
- Bruni and Zimmerl, 1951*
 Dorsal branch
 Dorsal digital lateral of the 5th
 Palmar branch (lateral palmar)
 Palmar digital lateral of the 5th
 Deep palmar nerves
 Digital palmar nerves
- Sisson and Grossman, 1953*
 Ramus dorsalis
 Lateral dorsal digital nerve of 5th digit
 Ramus superficialis
 N. dig. vol. lat. dig. V
 N. met. vol. IV (+ deep branch)
 Ramus profundus
 Nn. dig. vol. comm. II, III, IV
 (+ volar metacarpal branches of median nerve)
 Nn. dig. vol. proprii
- Dobberstein and Koch, 1958*
 Ramus superficialis
 Ramus profundus
- Miller, Christensen and Evans, 1964*
 N. cutaneus antebrachii caudalis
 Ramus dorsalis
 N. digitorum dorsalis lateralis V
 Ramus palmaris
 N. metacarpalis palmaris superficialis IV
 N. digitalis palmaris lateralis V
 Nn. metacarpales palmares profundi I, II, III et IV
 Nn. digitales palmares communes II, III et IV
 Nn. digitales proprii palmares laterales et mediales
- Koch, 1965*
 Dorsal branch
 Volar branch
 Superficial branch (Ramus volaris superficialis)
 Deep branch (Ramus volaris profundus)
 Nn. metacarpi volares profundi digiti secundi, tertii and quarti
 (+ Nn. metacarpi volares superficiales of N. medianus)
- Ghoshal and Getty, 1967*
 N. cutaneus antebrachii caudalis
 Ramus dorsalis n. ulnaris
 N. digiti V dorsalis proprius

Ramus palmaris n. ulnaris
 Ramus superficialis
 N. digiti V palmaris proprius
 N. digitalis palmaris communis (superficialis) IV
 (+ branch from Ramus profundus)
 Nn. digitales IV et V palmares proprii
 Ramus profundus
 Nn. digitales palmares communes (profundi) II, III et IV
 (+ Nn. digitales palmares communes (superficiales) II et III of N. medianus) = Tr. digitales palmares communes II et III
 Nn. digitales palmares proprii

E. CAT

Mivart, 1881
 Dorsal branch
 One branch to the outside of the 5th digit
 Other branch (after receiving a branch from the radial)
 Branch to the inner side of the 5th digit
 Branch to the outer side of the 4th digit
 Palmar branch
 Branch to the outside of the 5th
 Branch to the contiguous sides of the 4th and 5th digits
 A twig to median nerve

Chauveau and Arloing, 1902 (English ed.)
 Dorsal branch
 External dorsal collateral of small digit (+ branch of radial nerve)
 Internal dorsal collateral of small digit
 External of the auricularis
 Palmar branch
 External palmar collateral
 Internal palmar collateral of small digit
 External palmar collateral of annularis

Reimers, 1925
 N. cutaneus antebachii proprius
 Ramus dorsalis
 N. digiti V dorsalis ulnaris
 N. metacarpeus (or digitalis) dorsalis communis IV
 (+ lateral branch of Ramus superficialis of N. radialis)
 Nn. digitales dorsales proprii
 Ramus volaris
 Ramus superficialis
 N. digiti V volaris ulnaris
 N. metacarpeus volaris IV
 Nn. digitales volares proprii
 Ramus profundus

Ellenberger and Baum, 1943
 N. cutaneus antebachii caudalis
 Ramus dorsalis s. N. dorsalis manus
 N. dorsalis digiti V ulnaris
 N. metacarpicus (or digitalis) dorsalis communis IV
 (+ lateral branch of Ramus superficialis of N. radialis)
 Nn. digitales dorsales proprii

Ramus volaris
 Ramus (vol.) superficialis
 N. volaris digiti V ulnaris
 N. metacarpicus volaris (superficialis) IV
 Nn. digitales volares proprii
 Ramus (vol.) profundus

Bruni and Zimmerl, 1951
 Dorsal branch
 Dorsal lateral digital of the 5th
 Another branch (+ branch of radial nerve)
 Dorsal lateral of the 4th
 Dorsal medial of the 5th
 Palmar branch
 Digital palmar lateral of the 5th
 Another branch
 Digital palmar lateral of the 4th
 Digital palmar medial of the 5th

Reighard and Jennings, 1951
 Dorsal cutaneous branch
 Twig to the dorsal part of the ulnar side of the 5th digit
 Twigs to the contiguous sides of the 4th and 5th digits
 Palmar branch
 Superficial palmar branch
 Twig to the ulnar side of the 5th digit

Twigs to the contiguous sides of the 5th and 4th digits
 Deep palmar branch

Ghoshal and Getty, 1967
 N. cutaneus antebachii caudalis
 Ramus dorsalis n. ulnaris
 N. digiti V dorsalis proprius
 N. digitalis dorsalis communis IV
 (+ branch of Ramus superficialis of N. radialis)
 Nn. digitales IV et V dorsales proprii
 Ramus palmaris n. ulnaris
 Ramus superficialis
 N. digiti V palmaris proprius
 N. digitalis palmaris communis IV
 (+ branch of N. medianus)
 Nn. digitales IV et V palmares proprii
 Ramus profundus

TABLE II

TERMINOLOGY APPLIED TO THE MAIN BRANCHES OF THE MEDIAN NERVE (N. medianus) AND MUSCULOCUTANEOUS NERVE (N. musculocutaneus) IN THE REGION OF FOREARM AND FOREFOOT IN VARIOUS DOMESTIC ANIMALS INCLUDING MAN:

A. HORSE

Nomina Anatomica, 1966 (Man)
 N. musculocutaneus
 N. cutaneus antebachii lateralis
 N. medianus
 Ramus palmaris n. mediani
 Ramus communicans cum n. ulnari
 Nn. digitales palmares communes
 Nn. digitales palmares proprii

Chauveau and Arloing, 1902 (English ed.)
 N. musculocutaneus
 Musculo-cutaneous nerve
 N. medianus
 Internal plantar nerve
 Anastomosing branch
 Digital branches—anterior, middle and posterior
 External plantar nerve (= branch from N. ulnaris + branch from N. medianus)
 Deep plantar branch
 Digital branches—anterior, middle and posterior

McFadyean, 1903
 N. musculocutaneus
 Musculocutaneous branch
 Cutaneous branch
 N. medianus
 Internal plantar nerve
 Considerable branch (oblique branch)
 Digital branches—anterior, middle and posterior
 Other branch (+ ulnar nerve) = External plantar nerve
 Digital branches = anterior, middle and posterior

Bradley, 1920
 N. musculocutaneus
 N. cutaneus antebachii lateralis
 N. medianus
 Medial volar nerve (N. volaris medialis)
 Oblique communicating branch
 Ramus dorsalis
 Ramus volaris
 Lateral volar nerve
 (+ deep or terminal branch of ulnar nerve)
 Deep branch
 Ramus dorsalis
 Ramus volaris

Reimers, 1925
 N. musculocutaneus
 Ramus muscularis distalis nervi musculocutanei
 Ramus cutaneus antebachii nervi musculocutanei
 N. medianus
 N. volaris medialis
 Ramus communicans
 Dorsal branch
 Volar branch
 Lateral terminal branch
 (+ Ramus volaris of N. ulnaris) = N. volaris lateralis
 Dorsal branch
 Volar branch

Ellenberger and Baum, 1943

- N. musculocutaneus
 - Ramus muscularis distalis
 - N. cutaneus antebrachii medialis
- N. medianus
 - N. (metacarpicus) volaris medialis (= Ramus radialis)
 - Ramus communicans
 - Dorsal branch
 - Volar branch
- N. (metacarpicus) volaris lateralis (= Ramus ulnaris)
 - (+ N. ulnaris)
 - Dorsal branch
 - Volar branch

Zimmerl, 1949

- N. medianus
 - Medial palmar nerve
 - Anastomotic branch
 - Anterior digital nerve
 - Middle digital nerve
 - Posterior digital nerve
 - Latral palmar nerve (+ branch of ulnar nerve)
 - Deep palmar branch
 - Anterior digital nerve
 - Middle digital nerve
 - Posterior digital nerve

Bruni and Zimmerl, 1951

- N. musculocutaneus
 - Ramus musculocutaneus
- N. medianus
 - Medial palmar nerve
 - Communicating branch
 - Anterior digital nerve
 - Middle digital nerve
 - Posterior digital nerve
 - Dorsal branch
 - Volar branch
 - Lateral palmar nerve (+ ulnar nerve)
 - Deep palmar branch
 - Anterior digital nerve
 - Middle digital nerve
 - Posterior digital nerve
 - Dorsal branch
 - Volar branch

Sisson and Grossman, 1953

- N. musculocutaneus
 - Musculocutaneous branch
 - Cutaneous branch
- N. medianus
 - N. volaris medialis
 - Anastomotic branch
 - Ramus dorsalis
 - Ramus volaris
 - Middle digital branch (inconstant)
 - Lateral terminal branch (+ deep branch of ulnar nerve) = N. volaris lat.
 - Deep branch
 - Ramus dorsalis
 - Ramus volaris
 - Middle digital branch (inconstant)

Rooney, 1956

- N. musculocutaneus
 - Distal muscular branch
 - Medial cutaneous antebrachial nerve (N. cutaneus antebrachii medialis)
- N. medianus
 - Medial volar metacarpal nerve
 - Anastomotic branch
 - Dorsal digital nerve
 - Volar digital nerve
 - Intermediate digital nerve (inconstant)
 - Other terminal branch (+ volar branch of ulnar nerve) = lateral volar metacarpal nerve
 - Deep branch
 - Nn. metacarpici volares profundi
 - Dorsal digital nerve
 - Volar digital nerve
 - Intermediate digital nerve (inconstant)

Dobberstein and Koch, 1958

- N. musculocutaneus
 - Ramus muscularis distalis
 - N. cutaneus antebrachii medialis
- N. medianus
 - Ramus radialis (N. volaris medialis)
 - Ramus communicans
 - Ramus dorsalis
 - Ramus volaris

- Ramus ulnaris (+ Ramus volaris of N. ulnaris)
 - = N. volaris lateralis
 - Ramus volaris profundus
 - Nn. metacarpici volares profundi
 - Ramus dorsalis
 - Ramus volaris

Tagand and Barone, 1964

- N. musculocutaneus
 - Ramus musculocutaneus
 - Ramus cutaneus antebrachii medialis
- N. medianus
 - Internal palmar nerve (N. volaris medialis)
 - Anastomotic branch
 - Ramus dorsalis
 - Ramus intermedius
 - Ramus volaris s. N. digitalis palmaris proprius
 - External palmar nerve (N. volaris lateralis)
 - Ramus volaris profundus
 - Ramus dorsalis
 - Ramus intermedius
 - Ramus volaris s. N. digitalis palmaris proprius

Koch, 1965

- N. musculocutaneus
 - Ramus muscularis distalis
 - N. cutaneus antebrachii medialis
- N. medianus
 - Ramus radialis (N. volaris medialis)
 - Ramus communicans
 - Dorsal digital nerve
 - Volar digital nerve
- Ramus ulnaris (+ Ramus volaris of N. ulnaris)
 - = N. volaris lateralis
 - Ramus volaris profundus
 - Nn. metacarpici volares profundi lateralis et medialis
 - Dorsal digital nerve
 - Volar digital nerve

Ghoshal and Getty, 1967

- N. musculocutaneus
 - Ramus muscularis distalis n. musculocutanei
 - N. cutaneus antebrachii medialis
- N. medianus
 - N. palmaris medialis
 - Ramus communicans
 - N. digitalis dorsalis medialis
 - N. digitalis palmaris medialis
 - N. digitalis intermedius (inconstant)
 - N. palmaris lateralis (+ Ramus palmaris n. ulnaris)
 - Ramus superficialis
 - N. digitalis dorsalis lateralis
 - N. digitalis palmaris lateralis
 - N. digitalis intermedius (inconstant)
 - Ramus profundus
 - Nn. digitales palmares profundi

B. RUMINANTS

Chauveau and Arloing, 1902 (English ed.) (Ruminants)

- N. medianus
 - Internal plantar or interosseous palmar of the 3rd space
 - Branch to the external plantar
 - Branch to interdigital space
 - Internal collateral palmar nerves of the external digit
 - External collateral of the internal digit
 - Internal collateral of the internal digit

Reimers, 1925 (Ox, Sheep, and Goat)

- N. musculocutaneus
 - Ramus muscularis distalis
 - Ramus cutaneus antebrachii nervi musculocutanei
- N. medianus
 - Medial terminal branch
 - Medial branch
 - N. digiti III volaris medialis s. radialis
 - Lateral branch (+ medial branch of the lateral terminal branch)
 - N. digiti III volaris lateralis s. ulnaris
 - N. digiti IV volaris medialis s. radialis
 - Lateral terminal branch
 - Medial branch (+ lateral branch of medial terminal branch)
 - N. digiti III volaris lateralis s. ulnaris
 - N. digiti IV volaris medialis s. radialis
 - Lateral branch (+ terminal part of N. ulnaris)
 - N. volaris digiti IV lateralis s. ulnaris

Ellenberger and Baum, 1943 (Ox)

- N. musculocutaneus
 - Ramus muscularis distalis
 - N. cutaneus antebrachii medialis
- N. medianus
 - Ramus radialis
 - Medial branch
 - N. volaris digiti III radialis
 - Lateral branch
 - N. digitalis volaris communis III (+ medial branch of Ramus ulnaris)
 - Ramus ulnaris
 - Medial branch (+ lateral branch of Ramus radialis)
 - N. digitalis volaris communis III
 - Nn. digitales volares proprii
 - Lateral branch (+ Ramus superficialis of Ramus volaris of N. ulnaris)
 - N. volaris digiti IV ulnaris

Habel, 1950-51 (Ox)

- N. medianus
 - Medial branch
 - Abaxial volar nerve of the third digit
 - Middle branch
 - Axial volar digital nerves
 - Lateral branch (+ volar branch of ulnar nerve)
 - Abaxial volar nerve of the fourth digit

Bruni and Zimmerl, 1951 (Ruminants)

- N. medianus
 - Medial palmar nerve
 - Medial branch
 - Lateral palmar digital of the 3rd
 - Medial palmar digital of the 3rd
 - Lateral branch (+ lateral palmar nerve)
 - Medial palmar digital of the 4th digit
 - Anastomotic branch (+ lateral palmar nerve)
 - Lateral palmar digital of the 4th digit

Langer and Nickel, 1953 (Ox)

- N. medianus
 - N. volaris medialis
 - Ramus medialis
 - N. digiti III volaris medialis
 - Ramus interdigitalis
 - N. digiti III volaris interdigitalis
 - N. volaris lateralis
 - Ramus lateralis (+ Ramus volaris superficialis of N. ulnaris)
 - N. digiti IV volaris lateralis
 - Ramus interdigitalis
 - N. digiti IV volaris interdigitalis

Sisson and Grossman, 1953 (Ox)

- N. medianus
 - Medial branch
 - N. digitalis medialis digiti III
 - Another branch (+ branch of lateral branch of median nerve)
 - Common digital trunk
 - Volar digital nerves (N. digitalis volaris lateralis digiti III, medialis digiti IV)
 - Lateral branch
 - One division (+ twig from the medial branch)
 - Common digital trunk
 - Volar digital nerves
 - Other division (+ volar branch of ulnar nerve)
 - N. digitalis lateralis digiti IV

Schreiber, 1956 (Ox)

- N. musculocutaneus
 - N. cutaneus antebrachii medialis ni. musculocutanei
- N. medianus
 - Medial volar nerve
 - N. volaris digiti III medialis
 - N. digitalis communis volaris III
 - Lateral volar nerve
 - Ramus medialis
 - Ramus lateralis (+ Ramus superficialis n. ulnaris)
 - N. digiti IV volaris lateralis

Dobberstein and Koch, 1958 (Ox)

- N. medianus
 - N. volaris digiti tertii radialis
 - N. digitalis volaris communis tertius
 - N. volaris digiti quarti ulnaris (after receiving N. ulnaris)

McLeod, 1960 (Ox)

- N. musculocutaneus
 - Musculocutaneous branch
 - Dorsal cutaneous nerve of the forearm

N. medianus

- Medial volar nerve
 - Medial volar abaxial digital nerve
 - Volar axial nerve
 - Medial and lateral volar axial digital nerves
- Lateral branch (+ deep nerve of lateral volar nerve)
 - Lateral volar abaxial digital nerve

May, 1964 (Sheep)

- N. medianus
 - Medial branch (N. digitalis volaris abaxialis)
 - Middle branch (N. interdigitalis volaris communis)
 - Nn. digitales volares axiales
 - Lateral branch (N. digitalis volaris abaxialis)

Koch, 1965 (Ox)

- N. medianus
 - Medial branch
 - N. volaris digiti tertii medialis
 - Lateral branch
 - N. volaris digiti tertii lateralis
 - N. volaris digiti quarti medialis

Ghoshal and Getty, 1967 (Ruminants)

- N. musculocutaneus
 - Ramus muscularis distalis n. musculocutanei
 - N. cutaneus antebrachii medialis
- N. medianus
 - N. palmaris medialis
 - Ramus medialis = N. digitalis palmaris communis II
 - Nn. digitales II et III palmares proprii
 - Ramus interdigitalis
 - N. digiti III palmaris proprius
 - N. palmaris lateralis
 - Ramus interdigitalis
 - N. digiti IV palmaris proprius
 - Ramus lateralis (+ Ramus superficialis n. ulnaris) = N. digitalis palmaris communis IV
 - Nn. digitales IV et V palmares proprii

C. PIG

Chauveau and Arloing, 1902 (English ed.)

- N. medianus
 - Four branches:
 - Two upper are smallest and forms the collaterals of the rudimentary digits
 - The inferior two are the longest and reach the principal interdigital space, forming the collaterals of the two great digits

Reimers, 1925

- N. musculocutaneus
 - Ramus cutaneus antebrachii nervi musculocutanei
- N. medianus
 - Ramus medialis (radialis)
 - N. digiti II volaris medialis
 - N. digitalis volaris communis II
 - N. digiti II volaris lateralis
 - N. digiti III volaris medialis
 - Ramus lateralis (ulnaris)
 - A branch to N. digitalis volaris communis IV of N. ulnaris
 - N. digitalis volaris communis III
 - N. digiti III volaris lateralis
 - N. digiti IV volaris medialis

Ellenberger and Baum, 1943

- N. musculocutaneus
 - Ramus muscularis distalis
 - N. cutaneus antebrachii medialis
- N. medianus
 - Ramus radialis
 - N. volaris digiti II radialis
 - N. metacarpicus volaris (superficialis) II
 - Nn. digitales volares proprii
 - Ramus ulnaris
 - N. metacarpicus volaris (superficialis) III
 - Nn. digitales volares proprii
 - Branch to N. metacarpicus volaris (superficialis) IV

Bruni and Zimmerl, 1951

- N. medianus
 - Medial digital of the 2nd digit
 - Medial digital of the 5th digit

- Another branch
Lateral palmar of the 2nd digit
Medial palmar of the 3rd digit
Lateral palmar digital of the 3rd digit
Medial palmar digital of the 4th digit
- Sisson and Grossman, 1953*
N. medianus
Medial branch
Volar proper digital nerve of the medial digit
Volar proper digital nerve of the third digit
Middle branch
Volar proper digital nerves of the principal digits
Lateral branch
Volar proper digital nerve of the lateral digit
- Dobberstein and Koch, 1958*
N. medianus
Distal to the carpus forms 3 pairs of nerves, one pair for each of the 2nd, 3rd and 4th digit
- Schneider and Zintzsch, 1962*
N. medianus
Ramus medialis
N. digiti II volaris medialis
N. digitalis volaris communis II

Ramus lateralis (+ N. ulnaris)
N. digitalis volaris communis III
- Koch, 1965*
N. medianus
Medial terminal branch
Branch to the medial and lateral surface of the 2nd digit
Branch to the medial surface of the 3rd (medial main) digit
Lateral terminal branch
Branch to the lateral surface of the 3rd digit
Branch to the medial surface of the 4th digit
Branch to the lateral surface of the 4th digit (+ portion of ulnar nerve)
- Ghoshal and Getty, 1967*
N. musculocutaneus
Ramus muscularis distalis n. musculocutanei
N. cutaneus antibrachii medialis
N. medianus
N. palmaris medialis
Ramus medialis
N. digiti II palmaris proprius
N. digitalis palmaris communis II
Nn. digitales II et III palmares proprii
N. palmaris lateralis
N. digitalis palmaris communis III
Ramus lateralis
N. digiti V palmaris proprius
Nn. digitales III et IV palmares proprii
- D. DOG**
- Chauveau and Arloing, 1902 (English ed.)*
N. medianus
A branch
Internal palmar collaterals of the thumb
External of the index
Two branches (+ filament from ulnar nerve)
Internal palmar collateral of the annularis
Collaterals of the medius and index
- Reimers, 1925*
N. medianus
Radial (medial) branch
N. metacarpeus volaris I
N. digiti II volaris radialis
N. metacarpeus volaris superficialis II (+ N. metacarpeus volaris profundus II of Ramus volaris of N. ulnaris)
= N. digitalis volaris communis II
Nn. digitales proprii
Ulnar (lateral) branch
N. metacarpeus volaris superficialis III (+ N. metacarpeus volaris profundus III of N. ulnaris) =
N. digitalis volaris communis III
Nn. digitales volares proprii
- Bradley and Grahame, 1943*
N. musculocutaneus
N. cutaneus antibrachii lateralis
N. medianus
Nn. metacarpei volares superficiales I, II et III
(+ Nn. metacarpei volares profundus II, III et

- IV) = Nn. digitales volares communes II, III et IV
Proper volar digital nerves
- Ellenberger and Baum, 1943*
N. musculocutaneus
Ramus muscularis distalis
N. cutaneus antibrachii medialis
N. medianus
Ramus radialis
N. metacarpicus volaris superficialis I et II
(+ Nn. metacarpici volares profundus of N. ulnaris) = Nn. digitales volares communes I et II
Nn. digitales volares proprii
Ramus ulnaris
N. metacarpicus volaris superficialis III
(+ N. metacarpicus volaris profundus of N. ulnaris) = N. digitalis volaris communis III
Nn. digitales volares proprii
- Bruni and Zimmerl, 1951*
N. medianus
Palmar digital of the 1st digit
Medial of the 2nd digit
One branch
Another branch (anastomoses with lateral palmar)
Lateral palmar digital of the 2nd digit
Medial palmar digital of the 3rd digit
Third branch (anastomoses with a branch of lateral palmar)
Lateral palmar digital of the 3rd digit
Medial palmar digital of the 4th digit
- Sisson and Grossman, 1953*
N. medianus
N. metacarpeus volaris I, II et III
(+ volar common digital nerves)
Volar proper digital nerves
- Dobberstein and Koch, 1958*
N. medianus
Supplies the 1st, 2nd and 3rd digit each with a medial and lateral branch (Nn. metacarpici volares superficiales)
- Miller, Christensen and Evans, 1964*
N. medianus
Medial branch
Nn. metacarpales palmares superficiales I et II
Palmar digital nerve I
Medial palmar proper digital nerve II
Superficial palmar metacarpal nerve II
(+ a twig of lateral branch)
Lateral branch
N. metacarpalis palmaris superficialis III
(+ deep branch of ulnar nerve)
Lateral and medial palmar proper digital nerves
- Koch, 1965*
N. medianus
Nn. metacarpici volares superficiales I, II et III
(+ branches of ulnar nerve)
Volar digital nerves
- Ghoshal and Getty, 1967*
N. musculocutaneus
Ramus muscularis distalis n. musculocutanei
N. cutaneus antibrachii medialis
N. medianus
N. palmaris medialis
N. digiti I palmaris proprius
N. digitalis palmaris communis (superficialis) I
Nn. digitales I et II palmares proprii
N. digitalis palmaris communis (superficialis) II
Nn. digitales II et III palmares proprii

N. palmaris lateralis
N. digitalis palmaris communis (superficialis) III
Nn. digitales III et IV palmares proprii
- E. CAT**
- Mivart, 1881*
N. medianus
Three branches
Internal one to the pollex and the adjacent palmar border of the index digit
Middle one to the contiguous sides of the index and middle digits
Third branch to the adjacent sides of the 3rd and 4th digits

- Chauveau and Arloing, 1902 (English ed.)*
 N. medianus
 Internal branch
 Rudimentary filament to the thumb
 Filament to the internal palmar border of the index
 Middle branch
 External palmar collaterals of the index
 Internal of the medius
 External branch
 External palmar collaterals of the medius
 Internal palmar collaterals of the annularis
- Reimers, 1925*
 N. medianus
 Radial terminal branch
 N. digiti I volaris radialis
 Radial volar nerve of the 2nd digit
 Ulnar terminal branch
 Nn. metacarpei volares II et III
 Nn. digitales volares proprii
 A branch to N. metacarpeus volaris (superficialis) IV of N. ulnaris
- Bruni and Zimmerl, 1951*
 N. medianus
 Lateral branch
 Lateral palmar of the 3rd digit
 Lateral medial of the 4th digit
 Middle branch
 Lateral palmar of the 2nd digit
 Medial of the 3rd digit
 Medial branch
- Reighard and Jennings, 1951*
 N. medianus
 Three principal branches
 First one to either side of the thumb and onto the radial side of the 2nd digit
 Second one to the contiguous sides of the 2nd and 3rd digits
 Third one to the contiguous sides of the 3rd and 4th digits
- Ghoshal and Getty, 1967*
 N. medianus
 N. palmaris medialis
 N. digiti I palmaris proprius
 N. digitalis palmaris communis I
 Nn. digitales I et II palmares proprii
 N. digitalis palmaris communis II
 Nn. digitales II et III palmares proprii
 N. palmaris lateralis
 N. digitalis palmaris communis III
 Nn. digitales III et IV palmares proprii
 Ramus communicans cum ramo superficiali (e nervo ulnari)

TABLE III

TERMINOLOGY APPLIED TO THE MAIN BRANCHES OF THE RADIAL NERVE (N. radialis) IN THE REGION OF FOREARM AND FOREFOOT IN VARIOUS DOMESTIC NIMALS INCLUDING MAN:

A. HORSE

- Nomina Anatomica, 1966 (Man)*
 Ramus profundus
 N. interosseus [antebrachii] posterior
 Ramus superficialis
 Ramus communicans ulnaris
 Nn. digitales dorsales

- Chauveau and Arloing, 1902 (English ed.)*
 Muscular branches
 Cutaneous branches

- McFadyean, 1903*
 Muscular branches
 Cutaneous branches

- Bradley, 1920*
 Muscular branches
 N. cutaneus antebrachii dorsalis

- Reimers, 1925*
 Rami musculares
 Rami cutanei antebrachii nervi radialis

- Ellenberger and Baum, 1943*
 Ramus profundus
 Ramus superficialis
 Ramus cutaneus

- Bruni and Zimmerl, 1951*
 Muscular branches
 Subcutaneous branch

- Sisson and Grossman, 1953*
 Muscular branches
 N. cutaneus antebrachii dorsalis

- Rooney, 1956*
 Muscular branches
 Cutaneous branches
 (N. cutaneus antebrachii lateralis)

- Dobberstein and Koch, 1958*
 Ramus profundus
 Ramus superficialis
 N. cutaneus antebrachii lateralis

- Tagand and Barone, 1964*
 Ramus muscularis antebrachii dorsalis
 N. cutaneus antebrachii dorsalis

- Koch, 1965*
 Ramus profundus
 Ramus superficialis
 Nn. cutanei antebrachii laterales

- Ghoshal and Getty, 1967*
 Ramus profundus
 Rami musculares
 Ramus superficialis
 N. cutaneus antebrachii lateralis

B. RUMINANTS

- Chauveau and Arloing, 1902 (English ed.) (Ruminants)*
 Muscular branches
 Sensitive branch (cutaneous branch)
 Dorsal collaterals of the digits
 Another filament anastomoses with palmar collaterals

- Reimers, 1925 (Ox, Sheep, and Goat)*
 Muscular branches
 Ramus superficialis of N. radialis
 Rami cutanei antebrachii nervi radialis
 N. digiti III dorsalis medialis
 N. metacarpeus (or digitalis) communis III
 N. digiti III dorsalis lateralis
 N. digiti IV dorsalis medialis

- Ellenberger and Baum, 1943 (Ruminants)*
 Ramus profundus
 Ramus superficialis
 N. digitalis dorsalis proprius
 N. metacarpicus (or digitalis) dorsalis communis III
 Nn. digitales dorsales proprii

- Habel, 1950-51 (Ox)*
 Cutaneous branch
 Dorsal metacarpal nerve
 Medial branch—abaxial dorsal nerve of 3rd digit
 Axial dorsal digital nerves

- Bruni and Zimmerl, 1951 (Ox)*
 Subcutaneous branch (+ musculocutaneous of the median nerve)
 Medial dorsal of the 3rd
 Middle branch anastomoses with palmar digitals of the 3rd & 4th
 Lateral dorsal digital of the 3rd digit
 Medial dorsal digital of the 4th digit

- Langer and Nickel, 1953 (Ox)*
 Rami musculares distales
 N. cutaneus antebrachii lateralis
 (+ twigs of N. musculocutaneus)
 N. metacarpicus dorsalis
 N. metacarpicus dorsalis medialis
 N. digiti III dorsalis medialis
 N. metacarpicus dorsalis intermedialis
 N. digiti III dorsalis interdigitalis
 N. digiti IV dorsalis interdigitalis

- Sisson and Grossman, 1953 (Ox)*
 Cutaneous branch (N. cutaneus antebrachii dorsalis)
 + (lateral cutaneous branch of the median)
 Axial or interdigital dorsal nerves of the chief digits
 Medial (abaxial) of the medial chief digit

- Schreiber, 1956 (Ox)*
 Ramus superficialis (N. cutaneus antebrachii lateralis s. dorsalis) + (twigs of N. cutaneus antebrachii medialis of N. musculocutaneus)

N. digiti III dorsalis medialis
 N. metacarpicus dorsalis communis III
 N. digiti III dorsalis lateralis
 N. digiti IV dorsalis medialis

Dobberstein and Koch, 1958 (Ox)
 Ramus profundus
 Ramus superficialis

McLeod, 1960 (Ox)
 Muscular branches
 Cutaneous branch
 Dorsal digital nerves
 Medial and lateral dorsal axial digital nerves
 Medial dorsal abaxial nerve

May, 1964 (Sheep)
 Muscular branches
 Cutaneous branch (N. cutaneus antebrachii dorsalis)
 Medial branch
 Lateral branch
 Abaxial dorsal digital nerve of third digit
 Common dorsal interdigital nerve
 Axial dorsal digital nerves of the 3rd and 4th digits

Koch, 1965 (Ox)
 Ramus profundus
 Ramus superficialis
 Large cutaneous branch

Ghoshal and Getty, 1967 (Ruminants)
 Ramus profundus
 Rami musculares
 Ramus superficialis
 N. cutaneus antebrachii lateralis
 Ramus medialis = N. digitalis dorsalis communis II
 Nn. digitales II et III dorsales proprii
 N. digitalis dorsalis communis III
 Nn. digitales III et IV dorsales proprii

C. PIG

Reimers, 1925
 Ramus profundus
 Rami musculares
 Ramus superficialis
 Lateral branch (+ Ramus dorsalis of N. ulnaris)
 N. digitalis dorsalis communis III
 N. digiti III dorsalis lateralis
 N. digiti IV dorsalis medialis
 Medial branch
 N. digiti II dorsalis medialis
 N. digitalis dorsalis communis II
 N. digiti II dorsalis lateralis
 N. digiti III dorsalis medialis

Ellenberger and Baum, 1943
 Ramus profundus
 Ramus superficialis (+ Ramus dorsalis of N. ulnaris)
 N. metacarpicus (or digitalis) dorsalis communis IV
 Nn. digitales dorsales proprii
 N. metacarpicus (or digitalis) dorsalis communis III
 Nn. digitales dorsales proprii
 N. metacarpicus (or digitalis) dorsalis communis II
 Nn. digitales dorsales proprii
 N. dorsalis digiti II radialis

Bruni and Zimmerl, 1951
 Subcutaneous branch
 Medial branch
 Medial dorsal of the 2nd
 Dorsal digital of the 2nd
 Dorsal medial of the 3rd
 Lateral branch
 One branch (+ ulnar nerve)
 Other branch
 Lateral dorsal of the 3rd
 Medial dorsal of the 4th

Sisson and Grossman, 1953
 Cutaneous branch of the radial nerve divides at the carpus which concur with the dorsal branch of the ulnar nerve in supplying the dorsal digital nerves, two for each digit

Dobberstein and Koch, 1958
 Ramus profundus
 Ramus superficialis
 Nn. digitales dorsales to the 2nd to 4th digits

Schneider and Zintzsch, 1962
 Ramus profundus
 Ramus superficialis
 Lateral branch (+ Ramus dorsalis nervi ulnaris)
 N. digitalis dorsalis communis III
 Nn. digitales proprii
 Medial branch
 Medial dorsal nerve of the 2nd digit
 N. digitalis dorsalis communis II
 Nn. digitales proprii

Koch, 1965
 Ramus profundus
 Ramus superficialis

Ghoshal and Getty, 1967
 Ramus profundus
 Rami musculares
 Ramus superficialis
 N. cutaneus antebrachii lateralis
 Ramus lateralis
 N. digitalis dorsalis communis III
 Nn. digitales III et IV dorsales proprii
 Its continuation (+ Ramus medialis of Ramus dorsalis n. ulnaris)
 N. digitalis dorsalis communis IV
 Nn. digitales IV et V dorsales proprii
 Ramus medialis
 N. digiti II dorsalis proprius
 N. digitalis dorsalis communis II
 Nn. digitales II et III dorsales proprii

D. DOG

Chauveau and Arloing, 1902 (English ed.)
 Cutaneous branch
 Smallest branch is distributed to the lower moiety of the forearm, the thumb, and the internal border of the index digit
 Largest branch
 First, second and third dorsal intermetacarpal branch
 Collateral dorsal nerves
 First metacarpal nerve (+ ulnar ramusculæ)
 External dorsal collateral of the small digit
 Muscular branch

Reimers, 1925
 Ramus superficialis radialis (+ Ramus communis of Ramus superficialis ulnaris)
 N. digiti I dorsalis radialis
 Nn. digitales dorsales proprii
 Ramus superficialis ulnaris
 Nn. metacarpi dorsales II, III et IV
 Nn. digitales dorsales proprii II-V
 Muscular branches

Bradley and Grahame, 1943
 Ramus superficialis
 Medial branch
 Nn. dorsales digitorum I et II
 Lateral branch
 Nn. digitales dorsales communes II, III et IV
 Ramus profundus

Ellenberger and Baum, 1943
 Ramus superficialis
 Radial branch
 N. dorsalis digiti I radialis
 Nn. digitales dorsales proprii
 Ulnar branch
 N. metacarpicus (or digitalis) dorsalis communis II, III et IV
 Nn. digitales dorsales proprii
 Ramus profundus

Bruni and Zimmerl, 1951
 Superficial branch
 Small branch
 Dorsal digital nerve of the first digit
 Medial digital of the second digit
 Large branch
 3 branches
 First gives off dorsal lateral digital nerve of the second digit and dorsal medial of the third; second branch gives off lateral dorsal nerve of the third and dorsal medial of the fourth; third branch gives off lateral dorsal nerve of the fourth and dorsal medial of the fifth. The third branch anastomoses with ulnar nerve to form the dorsal lateral of the fifth
 Deep branch

Sisson and Grossman, 1953
 Ramus superficialis
 Medial branch
 Dorsal nerves for the first digit and the medial side of the second digit

Lateral branch
Dorsal digital nerves, except that to the lateral side of the fifth digit
Ramus profundus
Dobberstein and Koch, 1958
Ramus superficialis
Nn. digitales dorsales I or else II-IV
Ramus profundus

Miller, Christensen and Evans, 1964
Ramus superficialis
Ramus lateralis
N. cutaneus antebrachii lateralis
Nn. metacarpales dorsales II, III et IV
Nn. digitales dorsales mediales et laterales II, III et IV
N. digitalis dorsalis medialis V
Ramus medialis
N. metacarpalis dorsalis I
N. digitalis dorsalis I
N. digitalis dorsalis medialis II
Ramus profundus

Koch, 1965
Ramus superficialis
Medial and lateral branches
Dorsal collateral nerves of the digits
Lateral for the second, third and fourth digits
Medial for the first and second digits

Ghoshal and Getty, 1967
Ramus superficialis
N. cutaneus antebrachii lateralis
Ramus lateralis
Nn. digitales dorsales communes II, III et IV
Nn. digitales dorsales proprii
Ramus medialis
N. digiti I dorsalis proprius
N. digitalis dorsalis communis I
N. digiti I dorsalis proprius
N. digiti II dorsalis proprius
Ramus profundus
Rami musculares

E. CAT

Mivart, 1881
Radial nerve
One branch to the pollex and adjacent dorsal border of the index
Another branch to the adjacent sides of the index and third digits and radial side of the 4th digit
Branch to the dorsal branch of the ulnar nerve
Posterior interosseous nerve

Chauveau and Arloing, 1902 (English ed.)
Internal branch
Dorsal face of the thumb
Internal dorsal collateral of the index
External branch
Three metacarpal branches
N.B. External metacarpal branch anastomoses with the dorsal branch of the ulnar nerve, between the first and second digits
Muscular branches

Reimers, 1925
Ramus superficialis radialis
N. digiti I dorsalis radialis
N. digiti I dorsalis proprius
N. digiti II dorsalis proprius (after receiving a branch from Ramus superficialis ulnaris)
Ramus superficialis ulnaris
N. metacarpeus (or digitalis) dorsalis communis II
Nn. digitales dorsales proprii
N. metacarpeus (or digitalis) dorsalis communis III
Nn. digitales dorsales proprii
A communicating branch to Ramus dorsalis manus of N. ulnaris to constitute N. metacarpeus (or digitalis) dorsalis communis IV
Muscular branches

Ellenberger and Baum, 1943
Ramus superficialis
Radial branch
N. dorsalis digiti I radialis
Nn. digitales dorsales proprii (after receiving a branch from its ulnar branch)
Ulnar branch
N. metacarpicus (or digitalis) dorsalis communis II

Nn. digitales dorsales proprii
N. metacarpicus (or digitalis) dorsalis communis III
Nn. digitales dorsales proprii
A branch to Ramus dorsalis manus of N. ulnaris to constitute N. metacarpicus (or digitalis) dorsalis communis IV
Ramus profundus
Rami musculares

Reighard and Jennings, 1951
Superficial radial nerve to the thumb on both sides and to the medial side of the 2nd digit; to the contiguous sides of the 2nd and 3rd digits and to the contiguous sides of the 3rd and 4th digits
Dorsal (or posterior) interosseous nerve

Ghoshal and Getty, 1967
Ramus superficialis
N. cutaneus antebrachii lateralis
Ramus lateralis
N. digitalis dorsalis communis II
Nn. digitales II et III dorsales proprii
Ramus communicans to Ramus medialis = N. digiti II dorsalis proprius
N. digitalis dorsalis communis III
Nn. digitales III et IV dorsales proprii
Ramus communicans to Ramus dorsalis n. ulnaris to form N. digitalis dorsalis communis IV
Ramus medialis
N. digiti I dorsalis proprius
N. digitalis dorsalis communis I (after receiving Ramus communicans from N. digitalis dorsalis communis II)
N. digiti I dorsalis proprius
N. digiti II dorsalis proprius
Ramus profundus
Rami musculares

TABLE IV

TERMINOLOGY APPLIED TO THE CUTANEOUS BRANCH OF THE AXILLARY NERVE (N. axillaris) IN THE REGION OF FOREARM IN VARIOUS DOMESTIC ANIMALS INCLUDING MAN:

A. HORSE

Nomina Anatomica, 1966 (Man)

Bradley, 1920
N. cutaneus brachii lateralis

Reimers, 1925
Ramus cutaneus antebrachii nervi axillaris

Nickel, 1941
N. cutaneus brachii lateralis cranialis
N. cutaneus antebrachii cranialis

Ellenberger and Baum, 1943
N. cutaneus antebrachii cranialis

Sisson and Grossman, 1953
N. cutaneus brachii lateralis

Rooney, 1956
N. cutaneus antebrachii cranialis

Dobberstein and Koch, 1958
N. cutaneus antebrachii cranialis

Tagand and Barone, 1964
N. cutaneus brachii lateralis

Koch, 1965
N. cutaneus antebrachii cranialis

Ghoshal and Getty, 1967
N. cutaneus antebrachii cranialis

B. RUMINANTS

Reimers, 1925 (Ruminants)
Ramus cutaneus antebrachii nervi axillaris

Ellenberger and Baum, 1943 (Ox)
N. cutaneus antebrachii cranialis

Schreiber, 1956 (Ox)
N. cutaneus antebrachii cranialis

Dobberstein and Koch, 1958 (Ox)
N. cutaneus antebrachii cranialis

McLeod, 1960 (Ox)
Cutaneous branch

May, 1964 (Sheep)
Cutaneous branches

Koch, 1965 (Ox)
N. cutaneus antebachii cranialis

Ghoshal and Getty, 1967
N. cutaneus antebachii cranialis

C. PIG

Reimers, 1925
Ramus cutaneus antebachii nervi axillaris

Ellenberger and Baum, 1943
N. cutaneus antebachii cranialis

Dobberstein and Koch, 1958
N. cutaneus antebachii cranialis

Schneider and Zintzsch, 1962
N. cutaneus antebachii cranialis

Koch, 1965
N. cutaneus antebachii cranialis

Ghoshal and Getty, 1967
N. cutaneus antebachii cranialis

D. DOG

Bradley and Grahame, 1943
N. cutaneus brachii lateralis

Ellenberger and Baum, 1943
N. cutaneus antebachii cranialis

Dobberstein and Koch, 1958
N. cutaneus antebachii cranialis

Miller, Christensen and Evans, 1964
N. cutaneus brachii lateralis

Koch, 1965
N. cutaneus antebachii cranialis

Ghoshal and Getty, 1967
N. cutaneus antebachii cranialis

E. CAT

Ellenberger and Baum, 1943
N. cutaneus antebachii cranialis

Ghoshal and Getty, 1967
N. cutaneus antebachii cranialis

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