

also in connection with this foot is that the stunted hallux, which of all the digits possesses the most limited range of movement, should be the only one to retain its full complement of muscles.

Nervous arrangements.—These present certain characteristic peculiarities. The internal plantar nerve enters the sole by the hollow of the os calcis where it is found lying upon the inner side of the long flexor tendon. It ends by dividing into three digital branches which are distributed as follows, (1) the first runs along the tibial side of the hallux, (2) the second bifurcates to supply the adjacent sides of the hallux and index, (3) and the third divides to supply the contiguous margins of the index and medius. The first or innermost of these digital branches gives a minute twig to supply the abductor and flexor brevis of the hallux. In the leg, long before it reaches the foot, the internal plantar nerve gives off a slender branch which inclines outwards over the flexor longus digitorum, and is then continued upon the outer aspect of the tuber of the os calcis to its distribution upon the fibular border of the foot, and the fibular side of the minimus. It also gives a twig to the solitary belly of the flexor brevis digitorum. This nerve is probably a substitute for the superficial division of the external plantar nerve which is absent in the foot of the *Echidna*.¹

The external plantar nerve (*e.p.n.*) also gains the sole, by passing through the hollow of the os calcis. In this situation, however, it lies upon the outer side of the tendon of the flexor longus digitorum and under shelter of the outwardly directed tuberosity of the os calcis. It does not divide into a superficial and a deep branch, but is prolonged downwards as an unbroken trunk upon the accessorius, and under cover of the solitary belly of the flexor brevis digitorum. Suddenly turning inwards, it runs across the sole under cover of the plantar layer of muscles and ends at the tibial margin of the foot in twigs for the adductors of the hallux and index. It gives off (*a*) muscular and (*b*) digital branches.

The muscular branches supply the accessorius and all the intrinsic muscles with the exception of the abductor hallucis and flexor brevis hallucis. The digital branches are two in number. The first proceeds from the nerve trunk before it turns inwards under cover of the plantar muscles, and piercing the adductor minimi digiti divides to supply the adjacent sides of the minimus and annularis. The second digital branch takes origin under cover of the adductor annularis and bifurcates, to supply the contiguous margins of the annularis and medius. This is a peculiar arrangement. The internal plantar nerve gives off a branch which almost invariably springs from the external plantar, viz., the digital branch for the outer side of the minimus, and as it were in return for this, the external plantar gives a nerve which should come from the internal plantar, viz., the digital nerve for the opposed sides of medius and annularis.

¹ Have we not here an explanation of the peculiarity of the nerve-supply of the outermost belly of the flexor brevis digitorum in the *Ornithorhynchus*? In this animal the external plantar takes very much the same course as this branch, and it is probable that it contains, in its midst, the fibres of this nerve.