

## A NOTE ON THE SURGICAL ANATOMY OF THE OMOCERVICAL ARTERY IN THE DOG

DAVID EVANS, M.B., CH.B., F.R.C.P.(C)\*

THE OMOCERVICAL artery in the dog is a very useful vessel for acute and chronic cannulation. It lies in the neck and is therefore very accessible, and if chronic cannulation with exteriorization of the distal end is required, the catheter can be easily manipulated into a position away from the destructive influence of the animal.

It is the purpose of this paper to describe the surgical anatomy of the vessel and our technique for its localization.

The omocervical artery arises from the cranial surface of the subclavian artery at the point where the latter becomes the axillary artery.<sup>1</sup> Opposite and a little medially is the origin of the internal thoracic artery. Also medially is the first rib. It has five branches – descending, suprascapular, ascending, supraspinous, and superficial cervical, which supply various muscles and superficial tissue in the neck. The general direction of the omocervical artery and its branches from the subclavian artery is therefore cranial. Its general area of distribution is the lower anterior and lateral aspects of the neck, and this point must be remembered when positioning the animal.

The dog is placed on its back with the head rotated to the opposite side to that of the proposed site of the incision. This manoeuvre exposes a very important landmark – the external jugular vein. As this vessel in the dog is the main channel for venous return from the head and neck it is quite prominent.

The incision is made about one inch above and lateral to the cranial end of the manubrium parallel and just lateral to the external jugular vein. This vessel is dissected caudally exposing two further important landmarks.

(1) The omocervical vein which joins the external jugular vein laterally and somewhat posteriorly and at a cranial angle of 45 degrees.

(2) The distal communicating branch of the brachiocephalic which joins the external jugular vein a little further caudally and somewhat anteriorly and at a caudal angle of about 45 degrees. However, this vessel occasionally is small or even absent.

In the mesopotamia between these two tributaries lies the omocervical artery which can be easily identified by palpation. The omocervical vein is a good landmark in this respect for the artery lies parallel and caudal to it in part of its course.

These points are illustrated in Figures 1 and 2.

### REFERENCES

1. MILLER, MALCOLM; CHRISTENSEN, GEORGE; & EVANS, HOWARD. *Anatomy of the Dog*. Published by Saunders, 1964.

\*Dept. of Anaesthesia, University of Toronto and Toronto Western Hospital.



FIGURE 1. Forceps pointing to omocervical vein (upper) and distal communicating branch of brachiocephalic vein (lower) draining into external jugular vein.

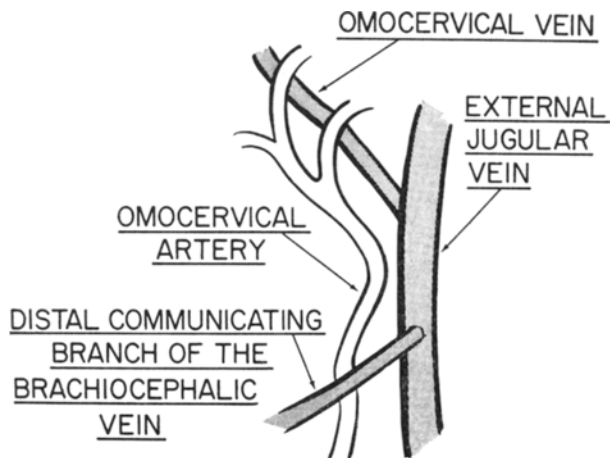


FIGURE 2. Diagrammatic representation of anatomy of the vessels shown in Figure 1.