NERVE INJURY AND INTRAVENOUS INJECTION.

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WHEN drugs are administered intravenously, the risk of causing injury to nerves in front of the elbow can be considerably minimized if the anatomical structure of this part is kept in mind. The operation appears to be so simple

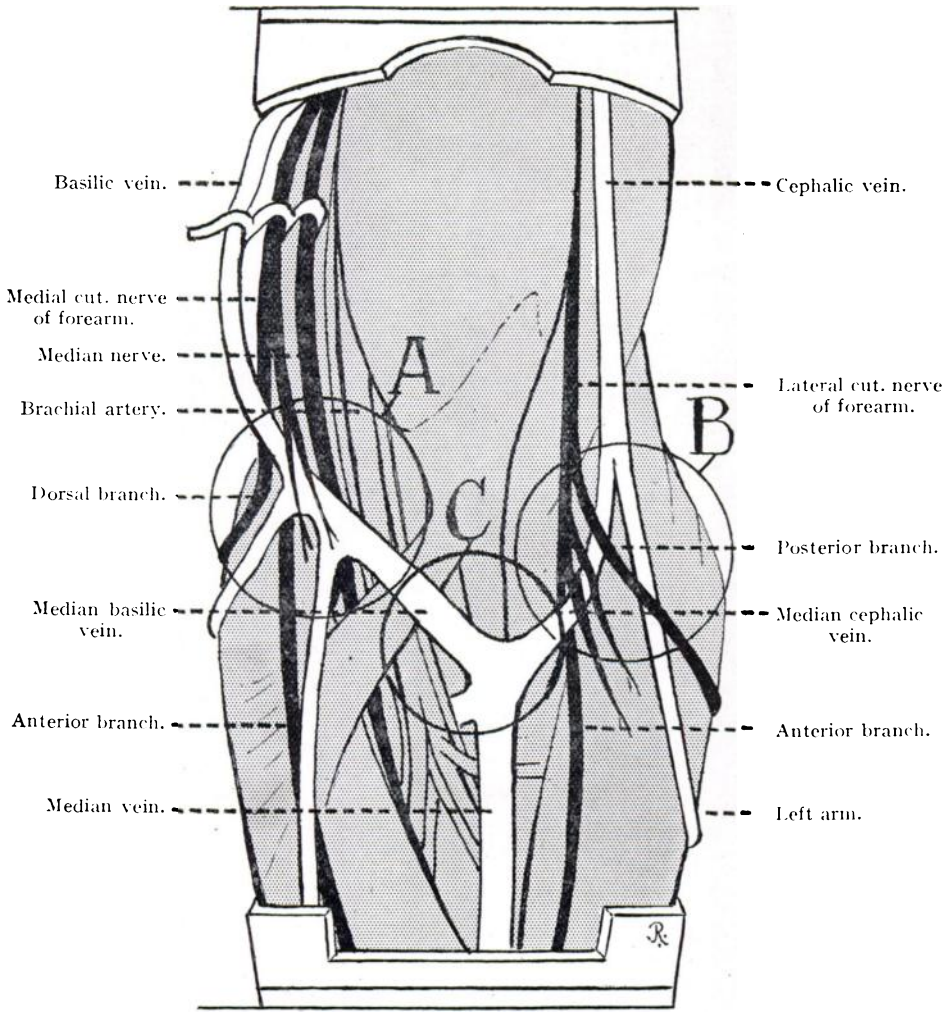


Diagram of front of left elbow showing relative position of nerves and veins.

https://doi.org/10.1192/bjp.82.336.67 Published online by Cambridge University Press

that the novice is frequently permitted to dig his way to proficiency, without first having been the recipient of instruction or warning regarding the procedure.

Nerve injuries are not infrequent following paravenous injections, nor even during repeated attempts to obtain blood for test. These injuries usually involve the branches of the medial cutaneous and lateral cutaneous nerves of the forearm, and cause disturbance of sensation on the inner and outer sides of the forearm respectively. As a rule the consequences are not serious, but owing to the anæsthesia produced, the risk of accidental burning is increased. Damage to the median nerve, however, is a serious mishap, as it may incapacitate the patient in his work. Zutt reported five cases of severe nerve injury following paravenous injections, three of which resulted in destruction of the median nerve and loss of use of the forearm. Furthermore, experience has shown that injuries to nerves following paravenous injections have almost no tendency to heal, and that the condition cannot be improved by operative exposure of the nerve.

Reference to the diagram will show that on the inner side of the arm the basilic vein runs along the course of the median nerve and the medial cutaneous nerve of the forearm. The median basilic vein lies in front of the median nerve. The dorsal branch of the medial cutaneous nerve passes behind this vein, but the anterior or volar branch may pass either in front of or behind the vein (circle A). On the outer side of the arm, the cephalic vein may run close to the lateral cutaneous nerve of the forearm, while the median cephalic vein has branches of that nerve in front of and behind it (circle B). It will be observed that no nerves lie in the immediate vicinity of the median vein and distal ends of the median basilic and median cephalic veins (circle C).

If possible, therefore, intravenous injections should be made into the median vein, and if this is impossible, then into the median basilic or median cephalic vein within the bend of the elbow, but never above it. There is always risk of nerve injury following paravenous injection above the bend of the elbow.

Reference.—Zutt, J., *Deutsch. med. Wochens.* 1932, No. 34.

https://doi.org/10.1192/bjp.82.336.67 Published online by Cambridge University Press