The Nurse and Venoclysis

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It is becoming apparent that nurses today are giving intravenous therapy in many of our hospitals. This is particularly evident in smaller hospitals where medical interns are not working. In larger hospitals too, in consequence of the time available at the disposal of the medical staff, this therapy is entrusted to the nurses. At the other end of the pole there are hospitals where nurses are prohibited from giving even hypodermic injections.

With ever-increasing demand and over-loaded schedule of the medical profession, it looks but logical that this service has to pass on to the hands of the nurses. Interrupted or delayed intravenous medication might not have the desired contemplated therapeutic effect; and since the nurses are in wards around the clock, administration of intravenous therapy is forming a part of their duty. This also involves a legal implication since the performance of this procedure has no authoritative sanction. When adequate teaching in technique and salient pharmaceutical features of the common medications is given to nurses, there is no reason why nurses should not administer fluids and medications intravenously. This assignment certainly calls for a comprehensive study. The knowledge of the basic principles in fluid and electrolyte balance is essential. The nurse should have a good knowledge of the vascular and the systematic circulation of blood. Instructions, both theoretical and practical, in the selection of sites and veins for venoclysis should be included. Intravenous therapy is administered to the patients on the written orders of the doctor. The nurse carefully studies the instructions—the fluid ordered, the amount, rate of transfusion, medications to be added, if any, to the fluids etc., Surgical asepsis of the site of infusion, sterility of equipment etc. are essential. A favourable vein is selected and made prominent by applying a tourniquet. Air should be expelled from the set. Median basilic and cephalic vein in the forearm for puncture is ideal. Dorsal metacarpal network of veins are the next best selections. When once the needle is in the vein the flow can be regulated and the height of the reservoir fixed. The needle is fixed to the skin by means of adhesives. In unconscious, delirious patients and children, the limb may be immobilized by applying a soft padded back splint.

Improper puncture may lead to a haematoma; or the infiltration of the fluid into the surrounding tissue may cause irritation leading to necrosis and thrombo-phlebitis. Systemic reaction such as rigor and pyrexia attributed to allergy or pyrogenic, or due to increased susceptibility to a foreign protein resulting from previous exposure to it, may be an untoward reaction. If the infusion is given too rapidly, cardiac embarrassment, pulmonary oedema, increased pulse rate, dyspnoea and elevated blood pressure, may occur. Embolism may be a grave complication due to the entry of air into venous circulation.

Therefore it is the responsibility of the nurse to recognize the therapeutic values and the possible reaction of the fluid administered. She should be armed with the knowledge of the management of any untoward reaction. In the event of a reaction, the infusion is immediately discontinued, and the physician informed. The need of the physician is anticipated in such cases, and such drugs as adrenaline hydrochloride and anti-histamines and syrings etc., are kept ready. During the therapy, a careful watch on the pulse rate and blood pressure is maintained and any tendency for a higher fluctuation in the blood pressure or pulse rate, cast the shadow of an impending reaction. More often venoclysis aims at maintaining a normal fluid and electrolyte balance, and therefore it is the prime responsibility of the nurse to maintain the record of the intake and output of fluids. This record is dependable indication for the physician to estimate the patient’s response to the therapy and also to order the continuation or otherwise. Comfort and safety of the patient, the desired outcome of the medication, largely depends upon the effective management of the therapy by nurses. Literature and pamphlets enclosed along with the packings of the drug, furnish very valuable information. Such pamphlets and literature filed and preserved should be readily available in the wards for reference and guidance.

Careful observation and judicious management during the entire therapy should be the key note for nurses.