

these procedures. Therefore, knowing that there is *some* risk, no matter how trivial, it becomes one's duty to avoid it.

In the amputation of fingers and toes below the metacarpo or tarso-phalangeal joints, rubber umbrella rings are used as tourniquets. The flaps are closely stitched, and, if there be any bleeding when the ring is taken off, a deep lateral stitch back of the line incision on one or both sides will always effectually control it. We never put a ligature upon these arteries, finding the above method amply secure, and, so far as our last few hundred such amputations show, unattended with disadvantage.

In exarticulations at the metacarpo or tarso-phalangeal joints, ligatures are applied if possible; but if the bleeding is obstinate, a deep stitch into the palm or sole can be made to control the appropriate vessel. These operations receive the usual house dressing and a palmar splint. They are, as a rule, not dressed from ten days to two weeks, when solid and complete union is expected and usually found.

Catgut sutures are passed through finger and toenails, without fear, if by so doing crushed or cut parts can better be brought into shape, and also in operations for ingrowing nails.

We have saved many fingers, ears, and noses, which came in hanging by mere shreds of tissue by promptly sewing them in place, and treating antiseptically. No opportunity has occurred by which to test the saving of those parts when entirely severed from the body.

Abrasions and brush burns are carefully cleansed and treated with either boracic acid ointment, or the standard house dressing.

The latter consists of: protective; Lister gauze, wrung out of 1 : 1000 HgCl₂ solution, and its skin surface thickly dusted with iodoform; a pad of dry 1 : 1000 cotton, and moist 1 : 1000 gauze bandages over all. We have found that Lister's boracic acid ointment makes up better if wax be substituted for the paraffine of his formula. Our receipt is: boracic acid and yellow wax, each 1 part, cosmoline 4 parts.

Ligatures are never applied except in the largest operative and accidental wounds.

Sutures run under or through the bleeding points effectually control them. No trouble is experienced in tying catgut sutures or ligatures, when the first tie of the knot is made as for a surgeon's knot. Catgut is invariably used for these purposes. In treating some hundreds of scalp wounds, no matter how extensive, I have never applied a ligature, always finding that carefully placed sutures will stop all hemorrhage.

Stitches are placed very close together in all wounds; this presupposes proper drainage if it is necessary. If so, it is secured by a few strands of finest catgut, placed along the bottom, and brought out at one end of the wound.

Small or superficial wounds as rarely require drainage as ligature. Scalp wounds are not drained

unless extensive. If the edges are much contused or torn, they are excised. Quite small wounds of the scalp or elsewhere, and sometimes larger ones, are, after antiseptic closure, covered in with a minute pad of bichloride cotton, and plastered down with either pure collodion or combinations of it with such drugs as evaporated tincture of benzoine (evap. fl. 3 ij tr. benz. comp. to fl. 3 ij, and make to fl. 3 ij with collodion), iodoform (10 per cent.), salicylic acid, etc. Wounds too small for stitches are similarly treated. Large wounds, of course, receive the house dressing and possibly drainage.

Very tense hematomata are freely incised, the clot or fluid blood curetted out, any bleeding vessel stitched or tied if it can easily be found, and the whole sewn up with or without a drain, according to size, and dressed with some compression.

Slowly resolving hematomata, or those in which suppuration is present or incipient, are manipulated in exactly the same way.

Punctured wounds are laid open, curetted, washed with 1 : 1000 HgCl₂ solution, and closed as above. If the bottom cannot be reached, a small drain should be carried as deep as possible, and the best hoped for.

Gunshot wounds are treated in much the same manner. If it can readily be done, the ball is extracted through the wound or by counter-opening. The entrance and exit (if there be one) wounds are excised, the tract of the ball curetted, thoroughly, a small gut drain carried all the way through, and the external wounds treated as simple incised ones.

Compound fractures, if the skin wound is small, are freely cut into, washed with 1 : 1000, curetted accurately stitched, and, if extensive, drained with catgut.

Some of them are dressed more frequently than the actual wounds require in order that good position of the bones may be secured.

Wounds of joints are treated in precisely the same manner, save that, unless they are dirty, we are satisfied with thorough washing with 1 : 1000, and omit the curette. Cure in one dressing is here attempted and good function expected.

Poisoned wounds are also treated somewhat similarly, but the utmost care is taken to get to the bottom of the wound itself and into all ramifications and sinuses with the curette and strong antiseptic solution (1 : 500). If the wound is very bad and cellulitis present or threatening, continuous antiseptic irrigation (1 : 2000) is started as soon as the cleaning out is effected.

Large glass percolating jars, with glass stop-cocks, or other regulating device, suspended over the part, give best satisfaction. Whilst thus employing irrigation any wounds should be well covered with protective, the whole part covered with lint, and the solution allowed to drip upon it.

Suppurating wounds might be classed as poison wounds, for the treatment is almost the same, namely: curette and antiseptic solution (1 : 1000).