ABSTRACTS FROM CURRENT MEDICAL LITERATURE

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Surgery

Bilateral Cortical Necrosis of the Kidneys following Severe Burns. C. E. Brown and G. L. Brane (J.A.M.A., July 24, 1943).—In most deaths due to burns the kidney lesion found is a tubular degeneration and vascular stasis. Necrotic foci in the kidneys are indicative of more severe damage and are probably due to the direct action of the toxin. In a few rare cases, as in the one described by the author, a bilateral cortical necrosis of the organs may be seen. In the case described, death appeared on the sixth day after extensive second and third degree burns. Urinary suppression appeared during the time of deep shock in the first 48 hours after the burn. The author points out that some workers believe that the congestive, hemorrhagic and edematous visceral appearances seen after extensive burns are of the same pattern as those found after traumatic shock, and that massive necrosis of the liver and renal cortex have been got in shock.

It has been suggested that both Curling’s ulcer and the renal necrosis might be due to arteriolar spasm. The stimulus for this spasm might arise from some physiological compensatory factor against shock e.g. hyperadrenalismia, or be due to the direct action of some toxin elaborated at the burned area.—A. LYALL.

Multiple Spontaneous Idiopathic Symmetrical Fractures. L. Edeiken and N. G. Schneeberg (J.A.M.A. July 24, 1943). This interesting condition was first described by Milkman in 1930, and in the present article the authors add the twentieth case to the literature. The condition has also been called osteoporosis melolytica. Clinically the lesion is marked by pain in the skeleton and progressive difficulty in walking so that the patient eventually becomes bedridden. An X-ray examination shows multiple transverse transparent bands resembling fractures, often symmetrically located in various parts of the skeleton. The condition tends to affect particularly middle-aged women, although cases have been reported in a soldier aged 18 years and a woman of 24. The cause of the lesion is quite unknown.—A. LYALL.
Surgery

Repair of a Ruptured Popliteal Artery, with the Use of Heparin, in the Post-Operative Period. G. F. Langley (Brit. Jour. Surg., Oct. 1943). Ligation of the popliteal artery is a simple procedure, but there is a very grave danger of gangrene following the operation. This danger is much greater here than in the case of the femoral artery. Makins even pointed out that it was an advantage to ligate the vein simultaneously in these cases. Suire and Sautter decided that wounds involving the popliteal artery should be treated within two hours to hope for success, and that after this time they are as serious as a total crushing injury, and amputation is almost inevitable. Suture of the artery is carried out with fine paraffined thread used on Carrel arterial needles, and two layers of continuous mattress sutures are inserted. Sodium citrate solution should be freely used during the operation. The aim of heparinization in these cases should be to keep the clotting time at about five times the normal level for a certain period, a long clotting time being essential in the first day after operation. After this, it would appear safe to reduce the level and especially where there is potential infection, because of the danger of secondary haemorrhage.—A. Lyall.

Lung Cancer and Early Diagnosis. C. K. Robertson (Edin. Med. Jour., 1943, 50:296). The author points out that cancer of the lung comes next to cancer of the stomach in frequency, the death rate from this condition increasing in Scotland from 437 in 1935 to 559 in 1940. The present report deals with 52 patients, 37 males and 15 females. The early symptoms included pain in the chest, cough, breathlessness, haemoptysis. The only hope for cure of the disease is complete removal of the lung, and when done this offers a 40-5 per cent recovery rate.—A. Lyall.

A Liver Principle Effective Against Shock in Burns. M. Prinzmetal et al. (J.A.M.A., July 10, 1943). A standard method of producing comparable burns in rats and mice was evolved by the authors, and in their experiments they found that commercial liver extracts appeared to increase the survival rates of the burned animals. They also found that purified extract of the liver did not appear to have this effect, so that the beneficial action was not exerted by the anti-anaemic factor. The authors are still trying to isolate the active principle concerned.

The authors also tried the effect of other means of treating the shock following severe burns. They tried the effect of desoxycorticosterone acetate and whole adrenal cortex extract. There appeared to be no beneficial effect, whether the substances were given before or after the scalding. Thiamine hydrochloride, which has been reported to be effective in hemorrhagic shock had no effect in the shock following scalding. It has previously been found that a renal humoral substance, presumably renin, appears in the blood after the induction of experimental shock. It was suggested that renal substance is produced as nature’s response to the severe hypotension of advanced shock, and thus tends to restore the blood pressure. If this is true, nephrectomised animals should show a decreased resistance to burn shock. The authors found that removal of the kidneys did not affect the mortality rate of the animals they used.—A. Lyall,