

rent must be so weak that it does not produce a contraction even of the normal muscles of the eye. Resection and recession of the muscles should not be resorted to for a period of two years if the muscle has failed to reestablish itself. . . . Two cases are presented." 10 references.

J. C. M. C.

MAHORNER, HOWARD: *Sympathetic Nerve Blocks in Rehabilitation of the Injured Extremity: Report of Cases; and a Discussion of Causalgia*. New Orleans M. & S. J. 94: 426-432 (Mar.) 1942.

"Pain sometimes remains as the only symptom to interfere with an otherwise satisfactory result following an injury. . . . Weir Mitchell first described and named a condition causalgia which he observed in soldiers who had been injured during the Civil War. Causalgia literally means a burning pain and the type of pain he described from incomplete severance or injury of a nerve was very intense. The soldiers had a severe burning pain in the distribution of the nerve affected. The area was hyperesthetic. There were paresthesias and the subject protected himself from the slightest stimuli. Heat, cold and even wind would cause an exacerbation of the pain to such an extent that they attempted to avoid them. Pains of a milder character which may not be regarded as typical causalgia occur more frequently and may persist late in convalescence from injuries. Leriche was the first to realize the practical importance of the sympathetic nervous system in arresting pain of such character. . . . Four instances are given in the form of case reports where repeated sympathetic nerve blocks with novocain in conjunction with physiotherapy resulted in recovery of the patient and rehabilitation of an extremity. In two instances the results otherwise had been regarded as perma-

nent and total disability." 2 references.

J. C. M. C.

HOLLIS, K. E.: *Indications and Contraindications in Spinal Anaesthesia*. Canad. M. A. J. 46: 351-354 (Apr.) 1942.

"It is impossible to catalogue separately the indications and contraindications in spinal anaesthesia, for a deterring factor in one case might under slightly altered circumstances have no influence in another case. . . . We all have had patients who presented a strong antipathy to spinal block. Personally I have refrained from forcing the issue. . . . Age is no barrier to this technique. . . . The young, robust and muscular individual is often difficult to control with inhalation anaesthesia but is an excellent subject for spinal block. . . . It is generally conceded by most authorities that spinal anaesthesia should be confined to operations below the diaphragm, that its greatest field of usefulness is in abdominal surgery, and that it should not be used for minor operations, which can adequately be performed under field block or some gaseous anaesthetic agent. I wish to add my endorsement to this last view. . . . In abdominal surgery and particularly in upper abdominal lesions spinal anaesthesia is the undisputed anaesthetic of choice. . . . Advanced cardio-vascular disease is a definite contraindication to high spinal anaesthesia. . . . Patients with an extremely low blood pressure should also receive every consideration before deciding to employ spinal block. . . .

"Patients with decreased blood volume such as occurs in shock or dehydration from prolonged vomiting are to be considered unsuitable. Disease of the central nervous system such as intracranial tumours, cerebral haemorrhage, tumours of the spinal cord and meningitis are definite contraindications in subarachnoid block. A posi-

tive history of syphilis should make one hesitant to employ spinal. . . Carcinoma of the prostate with its possible rapid metastasis following operation may produce a paralysis that will be attributed to the lumbar puncture. Pernicious anaemia with its concomitant neurological changes presents a similar problem. A preanaesthetic explanation to the relative of the possible sequelae in these cases is advisable. Septicaemia is a deterring factor to the use of spinal anaesthesia. . . . Likewise, lumbar puncture should not be attempted in the presence of superficial or deep seated infection at or near the site of injection. In patients with respiratory complications, sub-arachnoid block is especially indicated. . . . Theoretically, spinal anaesthesia is the anaesthetic of choice for diabetic patients but the frequent coincidence of cardio-vascular degeneration with this disease necessitates consideration of the additional risk. Organic changes in renal function are little affected by spinal anaesthesia. Hence it is the anaesthetic par excellence in kidney diseases. The advantages of spinal anaesthesia to the new-born, in Caesarean section, have been set forth by Heard. . . . We personally prefer cyclopropane for this operation. . . .

"In conclusion I would like to emphasize the necessity first, that spinal anaesthesia be entrusted only to those who through training and practical experience have made themselves proficient in its use, and second, that careful and constant observation of the anaesthetized patient be kept throughout the entire operation. Upon careful consideration of the effects of spinal anaesthesia on the disease present, together with the urgency of relaxation to facilitate surgical manipulation, and upon the judgment and ability of the anaesthetist, must rest the decision whether spinal anaesthesia is or is not indicated." 8 references.

J. C. M. C.

ARNOTT, G. M., AND YOUNG, W. F.: *Postoperative Administration of Fluids to Children*. *Lancet* 1: 523-526 (May 2) 1942.

"Children who are suffering from acute abdominal diseases often become dehydrated. They take less by mouth, they lose more by the skin and lungs, vomiting may add to their distress and persistent vomiting may lead to a serious loss of salt as well as of water. The commonest causes of vomiting of this type in children are hypertrophic pyloric stenosis, paralytic ileus and intussusception. In the last two, large volumes of the gastro-intestinal juices may accumulate in the distended coils of bowel and so increase the degree of dehydration. Treatment may also increase dehydration if the stomach is often washed out, or if suction drainage is instituted or an enterostomy performed. Haemorrhage into the bowel in intussusception may contribute to the dehydration, but it requires treatment by blood-transfusion if the loss of blood has been severe. . . . It was found that, in children, degrees of dehydration ranging from mild to moderate and severe were relieved by volumes of fluid representing 3-6% of their body-weight. As the tissues absorbed the fluid the patients assumed a more normal appearance, the sunken features filled out, the skin regained its elasticity, the mucous membranes became moist, and larger volumes of less concentrated urine were passed. Lashmet and Newburgh (1932) have shown that the normal kidney can concentrate urine to a specific gravity of 1032, and that even with this concentration an adult must secrete 500 c. cm. each day to eliminate the waste products of the body. Accordingly, the restoration of normal volumes, coupled with a fall in the specific gravity of the urine, were accepted by us as proof that adequate amounts of fluid were being given. Confirmation was ob-