

surgeon the value to be attached to the various elements, entering into the formation of bone. While not underestimating the periosteum, as a medium through which blood vessels reach the bone, and as a limiting and protecting membrane, of great use in many pathological conditions, he will no longer regard it as the structure which can secrete or reproduce bone. He will not trust the periosteum to regenerate bone unless it has adherent to it sound osseous plaques, the elements of which have the power of proliferation, and from these alone can osseous regeneration proceed. He will not discard injured osseous tissue under the belief that it must necessarily die, merely because it is divested of periosteum; but he will regard it as a tissue, possessed of great independent vitality, which, if placed in suitable media, where blood serum is plentiful, and where blood vessels can quickly be thrown out, is capable of living and growing. With that belief limbs, which otherwise would be sacrificed, may be saved."

#### MEDICINE

##### Some of the Rarer Symptoms produced by Gall Stones.

Ord ("Brit. Med. Jour.") took this subject as the basis of a paper read at the last annual meeting of the British Medical Association. He first drew attention to the circumstance that gall stones, might exist without producing symptoms, as was evident from the number frequently found post mortem in cases in which their presence had not been suspected during life.

Gall stones may be passed without symptoms. Two or three illustrative cases of the kind were briefly related. One was in a woman who had had no previous signs of gall stones, and who, the day after her confinement, passed a gall stone of such an enormous size that its passage was attended with almost as great difficulty as a second labor, and it was hence dubbed "the twin." Gall stones may give rise to pain, vomiting, etc., without causing jaundice. A patient was subject to irregularly recurring attacks of pain in the region of the gall-bladder with associated vomiting and faintness. She never had jaundice nor passed pale stools. She was seen by many physicians, and various diagnoses were made excepting the correct one. The patient died in an attack a few months later, and was found to have had a large biliary calculus,

which had made its way through a perforation in the gall-bladder into the peritonæum. Gall stones may produce intermitting pyrexia. Both Murchison and Charcot have drawn attention to this, the former attributing to it a nervous irritation, the later to a uroseptic fever. Ord's attention was first called to this complication by some remarks of the late Dr. Murchison having reference to the case of a distinguished Indian medical officer, who, after his return to England, was attacked with paroxysms of shivering, followed by fever and sweating, at regular weekly periods. He was supposed at first, to have a recurrence of an old intermittent, and, later on, to have hepatic abscess, till at last his symptoms indicated, and the necropsy proved, that his actual and only disease was a gall stone so impacted as to produce great irritation, but not complete obstruction, of the common bile duct. A case of glycosuria came under the author's observation which seemed to be due to a gall stone, and which disappeared, as well as the concomitant symptoms of emaciation, thirst, etc., on the passage of the gall stone. In another case an attack of pneumonia developed in the subject of biliary calculus, and to the author it appeared to be in some way dependent upon it. The co-existence of gall stone with malignant disease of the gall-bladder and the parts immediately adjoining has been recorded frequently enough to give rise to the speculation as to how far the presence of gall stones would be capable of causing malignant disease. The author has met with a few cases in which the evidence was of an affirmative nature. He has seen two cases in which the passage of gall stones was attended with sharp hæmorrhage preceded the passage of a large gall stone without biliary obstruction. The bleeding might have been due to the tearing of the opening between the gall duct and the bowel. In the second case considerable hæmorrhage occurred directly after an attack of biliary colic and jaundice. After the cessation of hæmorrhage, a ragged gall stone of such size as might have allowed it to traverse the gall-duct was found in the fæces.

##### Antiseptic Treatment of Purulent Otorrhœa.

Quite remarkable results have lately been obtained by the strictly antiseptic treatment of purulent otorrhœa suggested by Dr. W. Chrystie. Specula have all been kept in a 1 to 20 solution of