

level than umbilicus, but involved many abdominal sections, no mortality as a result of the procedure occurred. The writer, whose opinion on any question of local anaesthesia must be received with respect, calls attention to the fact that stovaine has a marked hæmolytic effect, in spite of being made up in what are apparently isotonic solutions. He himself prefers an isotonic glucose solution with a high specific gravity. By means of this high specific gravity he considers that he has more control over the solution once inside the spinal canal, *e.g.*, by tilting up the pelvis this fluid will flow towards the head, reaching the high dorsal nerves, and, consequently, a high level analgesia. His experiments at once ingenious and simple, bear him out. The article is one of the best in English on this subject, which at present is such a live issue on the continent, that we have yet met with.

GEO. WALKER, Associate in Surgery, Johns Hopkins Hospital. "Tuberculosis of the Bladder." *Annals of Surgery*, February, March and April, 1907.

Walker's earlier article on tuberculosis of the kidney is ably amplified by the present study of the same disease in its relation to the urinary bladder. The paper which is a long one, extending over three numbers of the journal in which it appears is based on a study of 413 cases collected from the literature; 34 cases from Dr. Halstead's wards and practice; material from the pathological laboratories of many clinics and on inoculation experiments by the author on the Guinea pig and rabbit.

Beginning with the history which commences with the studies of Ambroise Paré, it is interesting to note that as early as 1859 Wilks, and later, Gebbard, concluded that primary tuberculosis of the bladder did not exist, a view which the present article does much to substantiate; thus, out of 2,390 autopsies at the Johns Hopkins, 710 cases of tuberculosis occurred, 160 of which affected the genito-urinary organs: of these 160 the bladder was affected 22 times, but always secondary to disease elsewhere, generally the kidneys. Even more striking are the figures of Saxtorph, who, in 10,016 autopsies, where the genito-urinary system was affected 547 times, found the bladder affected in 53 cases in only one of which could he, with reasonable certainty, consider the disease primary.

In reference to the association of vesical tuberculosis with the remainder of the genito-urinary tract, the following figures are of interest: Out of 411 cases of genito-urinary tuberculosis 266 were secondary to disease elsewhere, generally the lungs, and 145 primary. (It is but