THE NEUROPATHOLOGY OF THE ALIMENTARY TRACT  
By Barbara Smith. (Pp. 118; illustrated; £4.)  

This monograph is a logical account of those disorders of the alimentary tract which are due to abnormality of its intrinsic innervation. Each section of the canal is taken in turn and the anatomy and physiology of its innervation discussed, followed by an account of pathological changes in the myenteric plexus. Case material is illustrated and there is an excellent bibliography. Achalasia of the cardia, hypertrophic pyloric stenosis, ‘pseudo-obstruction’ of the small intestine, and Hirschsprung’s disease are discussed in detail, and a chapter is also devoted to the trypanosomal infection which specifically damages the myenteric plexus, Chagas’s disease. Drug-induced human disease and the experimental effects of tranquillizers, cathartic, antineoplastic, and other neurotoxic drugs which affect parts of the nervous system unprotected by the blood-brain barrier are presented; this chapter is of particular importance to physicians in general. There is no mention of myenteric plexus pathology in storage diseases or of the role of appendicular or rectal biopsy in diagnosis.

Dr. Smith’s particular contribution has been to utilize extensively a simple method of examination of the myenteric plexus far superior to routine paraffin-embedded transverse sections of the intestinal wall. The gut is distended with formalin, and flat, horizontal sections of the wall are cut on the freezing microtome to expose large areas of the plexus and ganglia. A silver impregnation then reveals the two main types of ganglion cell, argyrophil and argyrophobe, which paraffin sections and histochemical methods fail to do. The differentiation of the two cell types is of practical importance, as absence of the coordinating argyrophil neurones alone is apparently sufficient to produce obstruction.

It is obvious that the threshold of research into disorders of gastrointestinal motility has only just been crossed, and that questions regarding transynaptic degeneration and involvement of the myenteric plexus in disorders of the central nervous system have hardly been posed. It is to be hoped that Dr. Smith’s pioneering work will stimulate the interest of neurologists in neurological gastroenterology, and encourage neuropathologists to increase their field and repertoire of investigation.

D. G. F. HARRIMAN

ULTRASONICS IN CLINICAL DIAGNOSIS  

The use of the midline echoencephalogram as a means of recognizing cerebral shift has won an established place in neurological diagnosis but the scatter of ultrasonic energy by the skull has limited its use as a means of delineating intracranial structures. In relation to other parts of the body it has been possible to develop two dimensional scanning systems which promise to be useful in the examination of the eye, the heart, and the abdominal organs, and which have been particularly promising in obstetrics and gynaecology.

In this book the first section, written by the editor, gives a clear account of the technical aspects of diagnosis by ultrasound. The second section consists of a series of reviews by specialists on the applications of ultrasonics to particular fields. The chapter on ultrasonic encephalography by D. N. White gives a clear description of the uses and limitations of the method in disease of the nervous system. In a final section the biological effects and possible hazards are discussed. The book is concise, well illustrated, and adequately documented, and is recommended reading for anyone who wishes for a sound and comprehensive introduction to the subject.

J. A. R. LENMAN