Cardiospasm

Progress in the experimental study of the psychosomatic aspects of gastro-intestinal disorders continues, and the latest organ to receive attention is the oesophagus. Drs. S. Wolf and T. P. Almy report in a recent number of Gastro-Enterology their interesting and important findings in a number of cases of Cardiospasm. They have applied the method which gave such brilliant results in the case of Tom 2 and his gastric secretion and motility to patients who complained that food seemed to stick in their retrosternal region. These patients were compared to some 20 asymptomatic control subjects. The technique adopted was the simple one of comparing the time taken for a mouthful of barium to pass completely from the mouth into the stomach in the experimental subject under conditions of different emotional stress and varying life situations. In the cardiospasm subjects two types of motility disturbance were noted radiologically, the one a “to-and-fro milking” of the barium up and down the oesophagus, the other a sustained pinching off of the barium with absence or great decrease in peristaltic activity.

Wolf and Almy conclude that “Cardiospasm” probably begins with hypermotility and an increased contractile state of the oesophagus, followed gradually by dilatation with stretching, elongation, and loss of tone. Psychologically they believe that such patients are for the most part defensive rather than aggressive in character, tending to brood over grudges and slights, but suppressing rather than expressing their conflicts and feelings. Repeated barium swallows under different emotional circumstances certainly show remarkable changes—thus in one patient a swallow time of 5 minutes increased to 30 minutes following a discussion of her daughter’s illness and her first husband’s desertion: in another a swallow time of 15 seconds increased to 30 minutes when the patient was reminded of a domestic conflict. Numerous examples of such delay are given, and in general it was found that discussion of emotionally charged topics was associated with hypermotility and obstruction while relative security and relaxation were associated with diminution or disappearance of the phenomena of cardiospasm. In a further series of observations the authors noted that noxious stimuli applied to the oesophagus also lead to delay in barium entering the stomach. This is of course to be expected, but it is interesting to see the delaying effect of simple irritants such as cold (iced barium) and heat (hot barium at 63 ° C.): Repeated swallows of such hot and cold drinks gradually increased the swallow time from 5 or 6 seconds to 2 or 3 minutes in normal individuals.

Experimental observations such as these command our deep interest and go far to explain many of the phenomena which we meet with at the bedside. Nevertheless they may not afford the whole explanation for the “mechanics” of Cardiospasm, and do not, as Alvarez points out, satisfactorily explain the rigid oesophageal ring which is tightly contracted even though it is not itself hypertrophied. Man has no thickened ring of muscle at the cardia, and Alvarez 3
again draws attention to the pathological absence of ganglion cells in Auerbach’s plexus in some series of cases reported histologically. The natural tendency of smooth muscle, as Alvarez first pointed out in 1922, when separated from its nearest ganglion cells is to contract down into a knot, a fact which may well be at least a partial explanation of the findings in Cardiospasm.

Bibliography