CARDIOSPASM: ÆTIOLOGY & TREATMENT.

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Symptomatology.

Cardiospasm is a rare disorder of the complex neuro-muscular mechanism which governs the passage of swallowed material from the lower œsophagus into the stomach. The victim of cardiospasm suffers from dysphagia together with a feeling of pain and oppression within the chest. Temporary relief is often obtained by self-induced vomiting, when the contents of the dilated œsophagus are evacuated. Some patients swallow fluid with ease, and often there are periods of complete remission which may last for months or even years and in most cases the malady pursues a long drawn out course. Fatalities from inanition have been recorded when proper treatment has been too long delayed.

Cardiospasm is not to be confused with that rare congenital malformation, mega-œsophagus—a condition analogous to Hirschsprung's disease. In mega-œsophagus there is a huge dilatation of the viscus which may be seen taking a sinuous course through the chest, its outline resembling that of a coiled serpent; in cardiospasm there is a typical and regular flask-like dilatation of the tube. Cardiospasm is an acquired condition, with symptoms which sooner or later compel its diagnosis, while the patient suffering from mega-œsophagus is often free from symptoms for many years before the onset of some late complication brings the condition into prominence.

Ætiology.

The complex anatomy of the cardia itself, and the present uncertainty as to its exact innervation, make it impossible for the clinician to base his concept of the syndrome on any secure basis. There is, for example, an important school who would deny that any true spasm exists and who would substitute the term "achalasia" for the traditional expression "cardiospasm." There are even those who would attribute the obstruction to a disordered action of the diaphragmatic muscular fibres which encircle the lower end of the œsophagus. The exact rôle played by the circular muscle layer of the œsophagus still remains dubious for a true hypertrophy of this layer has never been demonstrated.

Faced with this difficulty the statement of a working hypothesis becomes essential and the scheme here outlined is a provisional basis for a planned and successful therapy. Whatever the exact nature of the nervous control of the cardia, it is clear that cardiospasm is in some way due to the substitution of abnormal for normal impulses along the nervous path which joins the cardia to the central nervous system.

A recent review of a large series of cases shewed that more than half the patients were suffering from some form of psychological disturbance—in several very striking cases the syndrome had immediately followed a severe emotional shock suffered by chance in the very act of swallowing. In other patients evidence of psychological trauma had to be sought more carefully, but in all cases treatment by psycho-therapy proved successful and recourse to any local treatment was unnecessary.

This first group of patients provided an example of a central stimulation modifying a peripheral visceral reflex, and of equal importance were those cases in which some local disease acted as an irritative focus and cure could be attained by its eradication. Such conditions included simple peptic ulcer, myoma of the œsophagus, epiphrenal diverticulum and, in one specially interesting observation, a congenital cyst of the œsophagus.

The anamnesis will often assist in the search for the underlying cause of cardiospasm. In some patients the existence of an important psychological background will become obvious and in others complaint of pain, dysphagia, vomiting and hæmorrhage will suggest the presence of some gross organic lesion, especially peptic ulceration of the œsophagus. The pain of peptic ulcer is usually referred to the epigastrium but may sometimes be especially severe in the back at the level of the fifth or sixth dorsal vertebra. In contradistinction to gastric ulcer, the pain of an œsophageal ulcer is felt immediately after the ingestion of food. Cardiospasm, the result of a peptic ulcer, is often subject to the same periods of remission as peptic ulcer in general. When cardiospasm is caused by an œsophageal tumour or by an epiphrenal diverticulum, remissions are rare and there are often pressure effects on the mediastinal nerve trunks, so that dissociated symptoms like tachycardia or attacks of palpitation may accompany the purely œsophageal symptoms.

Clinical examination must be directed towards elimination of the organic causes of the spasm. Radiological examination after ingestion of a radio-opaque emulsion is, of course, essential. Fluoroscropy is carried out in several planes and a series of plates must also be obtained. Radiology will usually demonstrate the presence of a tumour or diverticulum, and, if several examinations are made with the patient lying on his back, successful demonstration of a peptic ulcer is also possible. Endoscopic examination is indicated if radiology has failed to demonstrate a definite lesion and is of special importance when the presence of frank or occult blood in the vomitus or excreta suggests ulceration.

Treatment.

The treatment of cardiospasm is now more systematised than in the earlier period of its history, when dilatation by one means or another was practised indiscriminately in all cases. When careful examination has failed to reveal an organic lesion, the patient should be referred for expert psychological treatment. The discovery of any lesion demands appropriate treatment. Excision is indicated in the case of an œsophageal tumour or an epiphrenal diverticulum. Peptic ulceration should be treated by rest, diet and internal remedies, especially drugs of the anti-spasmodic group. When these measures fail, the usual surgical treatment of peptic ulcer must be employed. Often a gastrostomy maintained for a period of three months will suffice, but in view of possible later complications probably a jejunostomy is to be preferred. Failure to obtain healing in this way may compel more radical measures, such as œsophago-gastrostomy or even, as in one historic case, excision of the ulcer-bearing segment of the œsophagus.

There are patients without an organic cause for their spasm who resist psychological treatment, or for whom it is not available, and for these some form of dilatation must be attempted. Dilatation must always be carried out with great caution, as perforation of the distended viscus has been recorded and usually as a fatal accident. There is a choice between rubber tubes weighted with mercury, as introduced by Hurst, and the hydrostatic dilator of Starck.

In the last resort, when all methods of investigation have failed to reveal the cause of the syndrome, operation on the cardia itself must be considered. The ingenious operation of cardioplasty has been generally abandoned and œsophago-gastrostomy is the only procedure to be considered. Operation may be essential when a fibrous stricture has followed the inflammatory changes so often associated with stagnation of the œsophageal contents. The operation of œsophago-gastrostomy is performed by the left transpleural route, not only because of the technical ease of its performance in this way but because an exposure of the cardia above the diaphragm may enable some local lesion, which has escaped recognition during the physical examination, to be detected and removed.