DEFINITION

1. A **hiatus hernia** is a protrusion of part of the stomach into the thoracic cavity through the oesophageal hiatus in the diaphragm. The herniation removes the sphincter effect of the oesophago-gastric junction, thus leading to reflux of gastric contents into the oesophagus.

2. Hiatus hernia has been divided into types as follows -

    2.1. **Sliding** hiatus hernia, in which the cardiac orifice and a portion of stomach immediately adjacent pass into the posterior part of the chest cavity carrying with them a small peritoneal sac applied to the left side of the stomach. This type makes up approximately 85% of hiatal herniae.

    2.2. **Rolling** (or **para-oesophageal**) hiatus hernia, which is a true hernia with the greater curvature of the stomach or, very rarely, the whole stomach ascends into a preformed sac lying in the posterior part of the chest cavity. A pure rolling hiatus hernia is extremely rare and makes up only some 5% of all hiatal herniae.

    2.3. **Mixed** hiatus hernia is a combination of sliding and rolling types and accounts for some 10% of all hiatal herniae.

CLINICAL MANIFESTATIONS

3. Hiatus hernia is a common and frequently symptomless condition which, in many cases, only comes to light as an incidental finding during investigations for other purposes.

4. Symptoms, when they do occur, stem from the effect of reflux gastric contents (which are highly acid) on the oesophageal lining (which is not designed for such insult), thus leading to oesophagitis. The symptoms include heartburn of varying severity difficulty in, and pain on, swallowing. The symptoms are commonly worse on lying down (thus preventing sleep) or bending forwards and are relieved by sitting upright or taking alkalies.

AETIOLOGY

5. It has, in the past, been said that there is a **congenital** type of hiatus hernia resulting from a developmentally short oesophagus. It is now accepted, however, that a true congenital short oesophagus is almost unknown, the confusion arising because a hiatus hernia arising in infancy usually rapidly progresses to stricture and shortening of the oesophagus, the latter feature being erroneously described as "congenital short oesophagus".

6. There are several factors involved in the production of a hiatus hernia -

    6.1. Muscular degeneration with increasing age.

6.2. Increased intra-abdominal pressure as in large ovarian cysts, pregnancy, increasing body weight and the wearing of tight corsets.

6.3. Increase of fatty tissue in the diaphragmatic hiatus with decreased elasticity of the diaphragmatic muscle such as occurs in obese women.

6.4. Once regurgitation of gastric contents is established, oesophageal spasm and fibrosis will pull more and more stomach into the chest.

7. Penetrating bullet or stab wounds or severe crushing injuries of the lower chest or sudden high-pressure compression of the whole abdominal wall may lacerate the diaphragm or sever some of its attachments and produce herniation of abdominal contents into the thorax.

8. Coughing, lifting heavy weights and physical strains cause rapid rise in both intra-pleural and intra-peritoneal pressures, positive pressure forming equally on each side of the diaphragm until expiration or release of load. Thus, these activities do not force the cardia through a normal hiatus although they can cause an existing hiatus hernia to become manifest through symptoms or increase the symptoms of such are already manifest.

CONCLUSION

9. Hiatus hernia is a condition which arises in association with ageing, obesity and pressure from intra-abdominal masses such as in pregnancy. Severe trauma affecting the diaphragm can lead to hiatus hernia formation but coughing, lifting and strain do not. The latter three factors may worsen an already existing hiatus hernia.

REFERENCES

Ellis-Brown R S. Oesophageal Hiatus Hernias. Br. J. of Clinical Practice. 1971;25(7):311-319.

Mann C V and Russell R C G (Eds). Bailey and Love's Short Practice of Surgery. 21st Ed. 1992. London. Chapman & Hall Medical. p929-936.

August 1993