

**TOPIC 4: A 70 year old lady with a massive hiatus hernia – fitness for surgery**

A patient with a massive hiatus hernia was noted to have a remarkably high degree of exertional dyspnoea. She is being assessed for laparoscopic repair of the hernia. What is the cause of the dyspnoea?

**Discussion:** - Conventional assessment looking at cardiac and respiratory causes is appropriate. Consideration of the possible contribution of the hiatus hernia is also appropriate.

For some years there has been a clinical observation that some of these patients have surprisingly severe exertional dyspnoea that is out of proportion to their conventional cardiorespiratory findings. The suggestion that the hernia was displacing lung volume and thus causing dyspnoea had been proposed, but was difficult to accept, as the actual lung volume reduction was less than seen in other settings. Nevertheless dyspnoea appeared to improve after surgery. A recently postulated mechanism for dyspnoea in these patients has been proposed by clinicians (Chris Naoum, Cardiologist, Greg Falk, Surgeon & others) at Concord Hospital in Sydney, and is gaining international interest and acceptance. The suggestion is that the hiatus hernia compresses the left atrium, pulmonary veins and coronary sinus, restricting blood flow into the left atrium and thus causing a dynamic impairment in exercise tolerance, particularly in a postprandial setting. (See Naoum C, Falk GL, Ng ACC, JAmCollCardiol 2011;58:1624-34 and Editorial by Marwick TH JAmCollCardiol 2011;58: 1635-36).

**In this case:-** A non-specific echocardiographic examination had already been performed. In view of the above, this was repeated with specific request to the cardiologist to evaluate for left atrial compression. This was found to be quite marked, and associated with a mass (the hiatus hernia) immediately posterior to the LA. ("Diagnosis confirmed"). The rest of the examination was unremarkable – Good LV function and no pulmonary hypertension. The patient can be scheduled for surgery in anticipation her dyspnoea will be improved (as well as her hiatus hernia). See clips from echo.