To do or defer: a case with adult congenital heart disease

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THE DILEMMA

You are asked to anaesthetize a 24-year-old woman who is listed for a laparoscopic cholecystectomy. She has had previous heart surgery in childhood, but is well and you consider her American Society of Anesthesiology (ASA) II (mild systemic disease, without incapacity). She is under follow up by her local cardiologist, you have no correspondence relating to this. The patient says that she had a 'hole in the heart' repaired. She is on no medications and, apart from a median sternotomy scar, her clinical examination is normal and there are no murmurs. Do you proceed to anaesthesia given the factual information you have, or defer her surgery in an attempt to clarify her medical history?

If you proceed, you are making the following assumptions. The patient has a minor heart problem, which you may justify by the fact that there are no murmurs, and she is only under follow up by her local cardiologist. You are also reassured by the patient's explanation of her diagnosis and absence of reported symptoms.

DISCUSSION

You have already made several mistakes, which could prove costly. There are 20 000 adults with congenital heart disease (CHD) in the UK, of whom 60% will have a simple congenital heart lesion and 40% will have moderate or complex disease.

- A good surgical repair with no significant residuae will often mean there is no audible murmur, however, you could still be dealing with a complex lesion
- The patient's own assessment of ability is often an optimistic prediction of actual ability, as it is based on a background of years of subtle exercise limitation
- The numbers of adults with CHD is increasing because of the success of paediatric cardiac surgical programmes, but currently there are insufficient specialist centres to care for them and therefore there is no national framework to delineate care pathways. Furthermore, they are a young mobile population, who are often lost to follow up beyond the paediatric period
- Many adults with CHD will have undergone surgical and/or medical interventions in childhood. Most remember only the simplest explanation, e.g. a 'hole in the heart'. These lay diagnoses may be falsely reassuring to the clinician and can conceal complex underlying disease (Walker, 2003).

Approaches to the management of adults with CHD should be based on a hierarchy of medical care, dependent on the complexity of the underlying lesion (Deanfield et al, 2003). Those with simple lesions can usually be anaesthetized in non-specialized centres with conventional anaesthetic techniques and cardiology input where appropriate. For those with moderate or complex lesions, the perioperative and postoperative periods may represent considerable risk and are best managed by a team who have an understanding of the patient's cardiac defect and his/her physiology, with anticipation of perioperative stresses (Lovell, 2004).

THE BOTTOM LINE

In this population, if the diagnosis is not known and no operation report is available, an elective operation should be deferred and specialist advice should be sought. Informed medical care is the only way to proceed with this potentially fragile group of patients. Hitopadesa (600 AD) said: 'No man should ever display his bravery unless he is prepared for the battle', and this might be applicable to medical practice if one takes on such cases in the absence of proper information. In this circulation there is no subpulmonary ventricle and blood flow is passive and non-pulsatile from the cavae into the pulmonary arteries. It is therefore highly preload dependant. HM

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