Correspondence

Anaesthesia and mediastinal masses

To the Editor,

In spite of a plethora of literature admonishing the hazards of general anaesthesia in symptomatic patients with anterior mediastinal masses,[1-4] cases continue to be reported where a child (or adult) with a potentially curable tumour has died because of disregard of the warnings.[5,6] In the current review,[7] under "Anesthetic Management," the authors discuss bringing symptomatic patients to the OR in *the sitting position to achieve adequate ventilation.* They also describe *as indicated by the severity of symptoms* installation of arterial lines and Swan Ganz catheters. I wonder why a symptomatic patient, whether it be from tracheo-bronchial, pulmonary arterial, or superior vena canal obstruction should be brought to the operating room for general anaesthesia at all? It is unfortunate to assume that inhalational induction of anaesthesia with spontaneous ventilation in symptomatic patients will protect against disaster. Indeed the antithesis of this is reported in the literature.

In their conclusion the authors correctly suggest: *in symptomatic patients requiring a diagnosis with tissue biopsy, a local anaesthetic should be employed.* To this recommendation should be added the asymptomatic patient with significant abnormalities on supine and upright flow volume loops or echo cardiography.[4] It has been well documented that the inflammatory response associated even with benign tumours is eminently responsive to short course radio-therapy and a window can be left to establish a histological diagnosis if necessary once the patient's symptoms and signs have resolved.

The flow sheet recommended in the excellent review by Newman *et al.*[4] is logical, safe, and if followed, should preclude further reporting of tragic anaesthetic disasters.

Roy Greengrass MD
Department of Anesthesia
University of Manitoba
Winnipeg, Manitoba

REFERENCES

1 *Keon TP.* Death on induction of anesthesia for cervical node biopsy. Anesthesiology 1981; 55: 471–2.
2 *Bray RT, Fernandes FT.* Mediastinal tumour causing airway obstruction in anesthetized children. Anaesthesia 1982; 37: 571–5.
3 *Mackie AM, Watson CB.* Anaesthesia and mediastinal masses. A case report and review of the literature. Anaesthesia 1984; 39: 899–903.
4 *Newman GG, Weingarten AE, Abramowitz RM et al.* The anesthetic management of the patient with an anterior mediastinal mass. Anesthesiology 1984; 60: 144–7.
5 *Levin H, Bursztein S, Heifetz M.* Cardiac arrest in a child with an anterior mediastinal mass. Anesth Analg 1985; 64: 1129–30.
6 *Northrip DR, Bohman BK, Tsueda K.* Total airway occlusion and superior vena cava syndrome in a child with an anterior mediastinal tumor. Anesth Analg 1986; 65: 1079–82.
7 *Pullerits J, Holzman R.* Anaesthesia for patients with mediastinal masses. Can J Anaesth 1989; 36: 681–8.

REPLY

Dr. Greengrass questions why a patient symptomatic from tracheobronchial, pulmonary arterial or SVC obstruction should ever be anaesthetized and asserts that it is "unfortunate to assume that inhalational induction of anaesthesia with spontaneous ventilation in symptomatic patients will protect against disaster." Our review article clearly supports the notion that an inhalational induction is no guarantee against disaster. Indeed, we referred to a number of papers that describe asymptomatic patients who developed complications during anaesthesia.[1-3] There are, however, situations in clinical practice where a general anaesthetic may be the only option available after all investigations have been performed, especially in children where patient cooperation may be absent. We thank Dr. Greengrass for referring us to a clinical report by Neuman et al.[4] *that contains a useful algorithm for the preoperative evaluation of these perplexing patients but point out that on the flow sheet referred to, Dr. Newman himself suggests general anaesthesia should be used if local anaesthesia is impractical. The thrust of our review article is not to present a single approach to this complex problem but rather to emphasize the need for a thorough understanding of the underlying pathophysiology.*

John Pullerits MD FRCPC
R. Holzman MD

REFERENCES

1 *John RE, Narang VPS.* A boy with an anterior mediastinal mass. Anaesthesia 1988; 43: 864–6.
2 *Bray RJ, Fernandes FJ.* Mediastinal tumour causing airway obstruction in anaesthetized children. Anaesthesia 1982; 37: 571–5.
3 *deSoto J.* Direct laryngoscopy as an aid to relieve airway obstruction in a patient with a mediastinal mass. Anesthesiology 1987; 67: 116–7.