



Protocol using oral phenoxybenzamine to prepare patients with catecholamine-secreting pheochromocytoma and paraganglioma for surgery

The suppliers of licensed phenoxybenzamine ("Dibenyline") injection, Goldshield Group Limited, have been experiencing difficulties in manufacturing this product and are currently out of stock; they cannot give an indication of when supplies will be restored.

It has become apparent that many endocrinologists do not use intravenous phenoxybenzamine pre-operatively but rather use high doses of the oral preparation; such a protocol provides an alternative means of preparing patients for surgery whilst supplies of the intravenous compound are being restored. One such protocol, used by Mr Barney Harrison (Consultant Endocrine Surgeon, Royal Hallamshire Hospital, Sheffield) and Dr John Newell-Price (Reader in Endocrinology and Honorary Consultant Physician, University of Sheffield), is described here:

1. After diagnosis:

After diagnosis is confirmed, the dose of oral phenoxybenzamine is titrated to symptoms and to control blood pressure. Most patients are started on an initial dose of 10-20mg (oral, twice daily), titrating up to a dose in the majority of patients of 20-30mg, although higher doses may be needed in some patients. Most patients do not experience significant side effects (eg nasal stuffiness, ejaculatory failure) at these doses. Beta blockade is not routinely recommended. This regime is maintained until the start of the "pre-operative preparation", which for most patients means that it will be sustained for several weeks.

2. Pre-operative preparation in the week prior to surgery:

If patients live at a distance or for other medical reasons, admission may be needed 5-7 days prior to surgery, but patients can also be managed by close liaison over the phone. Oral phenoxybenzamine is increased by 10mg per dose every 48 hours until nasal stuffiness and significant postural hypotension develops, or a systolic blood pressure less than 110mmHg is observed.

Patients tolerate anaesthesia extremely well under this protocol. It is important to note that beta blockade is not routinely used unless intolerable symptomatic tachycardia develops. It is also important to note that patients should be on alpha blockade for several weeks at least (to allow sufficient time for circulating volume expansion), and are in addition encouraged to drink sufficient fluids. Final volume expansion is achieved the night before the operation by the use of an intravenous infusion of normal saline overnight.

In Sheffield, this protocol has been used to prepare a large number (>100) of pheochromocytoma/paraganglioma patients for surgery, with the majority undergoing laparoscopic procedures, although the same preparation method is also used for open procedures.

***This information is provided by the Society for Endocrinology's Clinical Committee
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