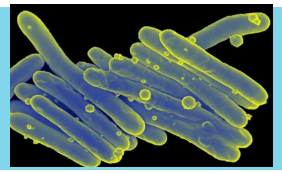
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Tropical disease in the West of Scotland

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Introduction

Leprosy is a multi-system disease caused by Mycobacterium Leprae. Whilst uncommon in the developed world, cases continue to rise in developing nations with up to 200,000 new cases reported annually[1]. This is relevant to local services as the ethnic minority population in Glasgow accounts for 11.6%[fig.1].
We report a case of lepromatous leprosy in a parturient residing in Scotland.

Case report

A 26 year old primigravida presented in early pregnancy following a history of nosebleeds and widespread rash.
A diagnosis of lepromatous leprosy with erythema nodosum reaction was made and treatment commenced with prednisolone and 'DOTS' combination therapy with Rifampicin, Clofazimine and Dapsone.

The pregnancy was complicated by anaemia and thrombocytopaenia with mild splenomegaly. The anaemia was thought to be secondary to Dapsone-related haemolysis, and thrombocytopaenia was thought most likely to be gestational.
She developed neuropathic leg pain and hypoaesthesia but this resolved during the pregnancy. Renal and liver function remained normal and there were no symptoms or signs of autonomic dysfunction with normal postural blood pressure readings and normal ECG.
After multi-disciplinary discussion, induction of labour was planned due to concerns over fetal growth.
The patient was screened for SARS-CoV-2 and this was positive, though she remained asymptomatic.

Anaesthetic options for analgesia in labour and anaesthesia for potential operative delivery were discussed at several occasions during pregnancy and "OAA LabourPains" translated information sheets were given to the patient. Following induction of labour, the patient had a spontaneous vaginal delivery with no anaesthetic intervention required.

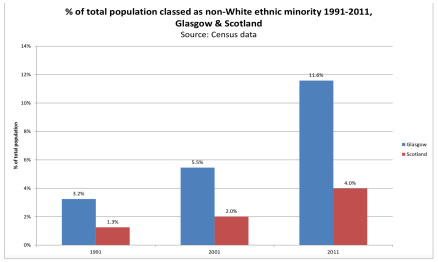


Figure 1. Glasgow's population % ethnicity 1991-. 2011[2]



Discussion

Leprosy raises many potential challenges for the anaesthetist including:

- Cutaneous changes (which may be of particular significance if occurring over sites of intravenous access or lower lumbar region)
- Neuropathies and myopathies
- Autonomic dysfunction
- Haematological derangements (including anaemia, thrombocytopaenia and agranulocytosis)
- Liver and renal impairment
- Infectious spread from the naso/oropharynx

Drug therapies for leprosy may in themselves be associated with blood dyscrasias, hepatitis, psychosis, and peripheral neuropathies.

Anaesthetic management should be informed by the presence of any complications, most notable thrombocytopaenia or peripheral neuropathies. The possibility of autonomic dysfunction should be considered regardless of which anaesthetic modality is chosen and care taken to actively manage hypotension.

The patient's SARS-CoV-2 status was a further factor influencing the risk-benefit assessment of anaesthetic options in this case.

Key Points

- Leprosy is not exclusively a cutaneous disease and can have wide ranging implications for the anaesthetist.
- The OAA 'LabourPains.com' resource provides an invaluable source of written information particularly for those where English is not a first language.
- With increasing migration, it is important that such cases are continually reported for education in a health service increasingly exposed to tropical disease.

References

1. WHO SEARO/Department of Control of Neglected Tropical Diseases. Guidelines for the diagnosis, treatment and prevention of leprosy. Oct 2018
2. Walsh D. The changing ethnic profiles of Glasgow and Scotland, and the implications for population health *Glasgow Centre for Population Health* Sept 2017