

Thyroid surgery in West Africa: Experience of 134 cases onboard mercy ships

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Background: Africa Mercy is a hospital ship that allows challenging third world surgical conditions to be managed in a well-resourced environment at no cost to the patient. Thyroid disease is common in West Africa and often advanced at the time of presentation. The main indication for thyroid surgery is compressive symptoms, thyrotoxicosis and malignancy.

Materials and Methods: A retrospective review of prospectively collected data on all thyroid procedures that were performed by the authors between the years 2008-2013 was undertaken. The countries included Liberia, Benin, Togo and Guinea. Pathology type, surgery performed, anaesthetic airway used and complications were evaluated.

Results: A total of 134 patients (80 females, 44 males) underwent thyroid surgery. This included 69 total thyroidectomies, 24 for massive multi nodular goitre (weight over 1 kg), of which 10 included a retrosternal component, 35 for Graves disease and 6 for papillary carcinoma also requiring neck dissection. Partial thyroidectomies included 63 cases of multi nodular goitre. Awake fibre-optic intubation was required in 16 patients (n=16, 12%) and an open surgical cricothyroidotomy under local anaesthesia was required in one patient. Complications included re-exploration for collection (n=6, 4.4%), chyle leak (n=1, 0.7%), calcium supplementation for <1 week (n=9, 6.6%), and recurrent laryngeal nerve injury (n=2, 1.4%).

Conclusion: Despite advanced pathology, peri-operative complication rates remain similar to those found in the developed world. A skilled team involving anaesthetists experienced in difficult airway management is essential. Mercy Ships is a safe and effective model for performing challenging thyroid surgery in the developing world.

Biography

Jeffrey van Gangelen received a Health Sciences degree in 2003 from Adelaide University and an MBBS in 2007 from the Australian National University. Currently in his 6th post graduate year, Jeffrey is undergoing specialty training with the Royal Australian College of Surgeons in General surgery with fellowship training planned in the area of thyroid surgery. Jeffrey is passionate about bringing surgical services to rural and third world areas and has volunteered extensively in West Africa, Uganda and most recently Bangladesh. Research is essential in evaluating and improving these services and this is an important part of his work.

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