

The Minutes of the meeting of the Derby Medical Society

Held on 24th March 2015 in the Derby Medical School

Apologies: Dr Ian Shand

Welcome: Mr S Iftikhar, President

Minutes for the meeting 3rd March 2015: Read by Dr S Archer, Senior Secretary, and approved.

New members: Dr Saqib Bhatti, General Practitioner
Dr Kamal Chitkara, Consultant Cardiologist

Deaths of members: The Society noted with sadness the deaths of Dr David Howell (retired Consultant Neuropathologist) and Dr Hugh Price (General Practitioner).

Annual General Meeting (separate minutes)

2014-15 Trainee doctors' case presentation prize: Awarded to Dr Virginia Bray, ST3 in Palliative Care, for her presentation "A MASS-ive confusion". This concerned a patient with a flank mass thought initially to be an abscess. Initial investigations were equivocal, but the lesion turned out to be an adenocarcinoma.

Guest Lecture: Mr Keith Jones, Consultant Maxillofacial Surgeon, Derby - "Fibular Grafts for Facial Reconstruction"

Mr Jones first performed a free fibular graft for mandibular reconstruction in Derby in 1992, and his lecture described the gradual evolution of the technique since, accompanied by a wide selection of extremely impressive clinical photographs.

The free fibular graft is a composite free flap, comprising:

- Part of the middle one third of the fibula, which can be cut into segments and shaped to fit the bony defect
- Associated part of the flexor hallucis longus muscle
- Overlying skin measuring up to 8 x 20cm
- Blood supply derived from the peroneal artery and its venae comitantes

Free fibular grafts can be used to reconstruct the mandible or the maxilla, the latter being more complex in shape and therefore more of a technical challenge. The main goals are to restore facial contour and dental occlusion in patients with bone and soft tissue loss, mostly from tumour resections.

Surgery is long, complex and expensive, but success rates are high with approximately 98% graft survival. Many patients undergo resection and all necessary reconstruction in one sitting. Usually the operation will be performed by two surgical teams operating simultaneously, one to prepare the graft and one to reconstruct the face. Mr Jones emphasised the importance of the team approach in getting the best results for patients.

Developments that have occurred in the last 20 years include:

- Insertion of dental implants into the fibular graft, or magnets to hold a denture in place
- Surgical planning based on 3D CT data
- 3D printing of CT data to produce a model that can be used to plan reconstruction of bone defects, and inform patients about their surgery
- Production of custom fixation plates to hold the fibular graft in place whilst it becomes integrated.
- Remote computer-assisted planning of the bone reconstruction between the surgeon in Derby and the engineer in Belgium.
- Custom-made cutting guides to allow the fibula to be cut perfectly to fit the defect

There were many questions, including:

- The success rate of the technique
- Do fibular grafts grow if performed in skeletally immature individuals?
- Does the fibula become stronger and thicker in response to load?

Vote of thanks: given by Mr Ian Scott

Register: signed by 28 members and 1 trainee.

Next meeting: 22nd September, 2015

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SY Iftikhar, President

Date: