Dr Anwar’s deep lamellar technique, ‘Big Bubble’, involves generating a big air bubble between the stroma and Descemet’s membrane. Removal of the stroma exposes the smooth Descemet’s membrane. The following instruments have been developed with Dr Anwar by Duckworth & Kent for his technique.

**16 blade corneal marker, ref: 9-735-1, and hook, ref: 6-112**

16 regularly spaced peripheral radial marks on the cornea

Spatula, ref: 6-099-3, allows tenting up of final corneal lamella for a safe split by a sharp metal blade

Scissors, ref: 1-218, being used for removal of final corneal lamella

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**6-112 Anwar Keratoplasty Hook**

- 0.18 diameter tip for 1mm length
- Flat face at tip
- 45° angle shaft, tip to angle length 10mm
- Round handle, length 119mm

Designed to be used in conjunction a 16 Blade Corneal Marker (9-734). Used to mark the anatomical centre on the cornea through the hole in the crossbar of the corneal marker.

**6-099-3 Anwar Keratoplasty Spatula**

- 0.25 diameter blunt tip
- Tip tapered from 0.5 diameter
- Angled shaft, tip to angle length 7mm
- Round handle, length 115mm

Short and firm spatula with a smooth polished tip that facilitates lamellar dissection / delineation or insertion into the pre-Descemet’s plane. The wire tip is tapered from 0.5 to 0.25mm diameter, and allows tenting up of the final corneal lamella for a safe split by a sharp metal blade.
1. Use the Anwar Keratoplasty 16 Blade Ring Marker (ref: 9-735-1) on the cornea.

2. Partial trephination (300 microns) with pre-set depth.

3. Place a dab of visco elastic on the corneal surface.

4. Insert a bent 27G needle bevel down deep in the corneal groove.

5. A needle is advanced deep in the paracentral direction deep in the stroma at about 80% depth.

6. The needle is already attached with an air filled syringe.

7. Press the plunger with some force.

8. The bubble appears instantly and is recognized by a white circular band.

9. The stroma anterior to the bubble is removed with a blade.

10. A paracentesis is done peripheral to the bubble and the aqueous fluid egressed.

11. The cavity of the bubble is penetrated with the sharp blade (30°).

12. The knife is withdrawn and the bubble collapses.

13. The Anwar Keratoplasty Spatula (ref: 6-099-3) is inserted into the cavity of the bubble through the opening created by the sharp blade.

14. The stroma above the spatula is sliced with the blade. The Descemet’s membrane is now exposed.

15. Using the Anwar Keratoplasty Left & Right Scissors (ref: 1-218 & 1-219) the residual stroma is removed in two halves.

16. The Descemets membrane is stripped off the donor button.

**Big Bubble Deep Lamellar Technique, Dr Mohammad Anwar, FRCS**

**Additional Instruments**

**6-604 Daya Lamellar Spear**

- 1.3mm width curved blade
- 0.15mm thickness at tip
- 35° angled curved shaft, tip to angle length 10.5mm
- Round handle, length 130mm

- 1.8mm width curved blade
- 0.15mm thickness at tip, 1mm at base of shaft
- 35° angled curved shaft, tip to angle length 11.8mm
6-607 *Morlet Lamellar Knife / Dissector*

- 0.35mm x 2mm curved
- Angled shafts 12mm tip to curve

- 0.1mm x 1.5mm with sharp edges
- Tip to angle length 3mm
- Round handle, length 111mm

Combined Pauifique knife and lamellar corneal dissector. Pauifique knife used for starting lamellar corneal dissection and also to extend while peeling back superficial corneal tissue. Also used for undermining the periphery of host lamellar corneal bed which helps to prevent development of a step at the anterior host donor junction when implanting a donor lamellar that is thicker than excised host lamellar. Pauifique knife also used to for removing lamellar host tissue down to level of Descemet’s membrane. Lamellar corneal dissector is used to create a lamellar corneal plane via a peripheral corneal pocket or to widely extend a lamellar dissection that has been started with Pauifique knife. Designed to separate lamellae and to stay within a plane. Corneal lamellae can be rapidly separeted with this instrument without the need for lifting and turning back lamellar flap. After separating the layers, lamellar corneal button may be excised with scissors.
Visit: www.duckworth-and-kent.com to view over 800 ophthalmic titanium instruments

As well as product information for over 800 instruments, you will also find detailed literature and informative videos showing some of our instruments in action.

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