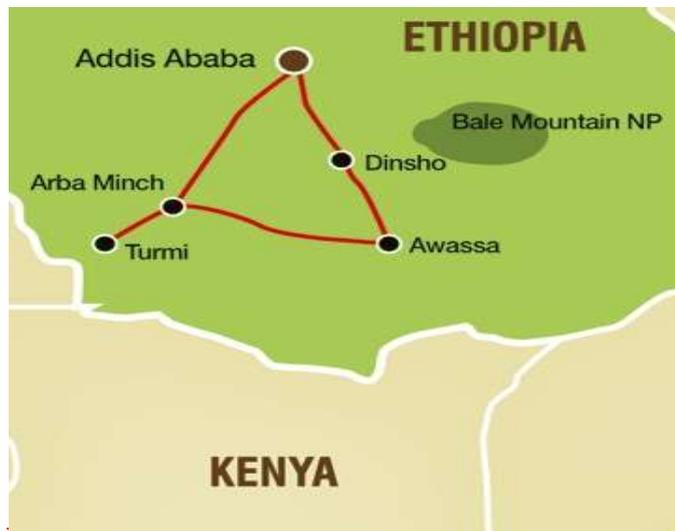




The British Association  
of Urological Surgeons

**The College of Medicine & Health Sciences School of  
Medicine, Hawassa, Ethiopia**





### **Report on UROLINK visit**

Shekhar Biyani (12<sup>th</sup> – 17<sup>th</sup> October 2013)

Chandrasekharan Badrakumar (12<sup>th</sup> October – 2<sup>nd</sup> November 2013)

#### **Pre visit preparation**

At BAUS Manchester, I met Mr Badrakumar from Inverness, Scotland regarding visiting Hawassa. Mr Badrakumar had met Dr Aberra for a short time In Glasgow BAUS 2012 during his last visit to the UK. He was keen to visit Hawassa and help Dr Aberra to develop TURP skills. Mr Badrakumar agreed to stay in Hawassa for 3 weeks. Following discussions with the UROLINK committee members, I finalised my

trip to go to Hawassa in October 2013, as I was travelling to Lusaka as well. I informed Dr Aberra and suggested that he should check instruments and select suitable cases for surgery. Mr Badrakumar and I managed to get catheters and other disposable materials from various sources.

#### **Saturday 12 October 2013**

I joined Mr Badrakumar at Heathrow to travel to Hawassa. Our journey to Addis Ababa was uneventful.

#### **Sunday 13<sup>th</sup> October 2013**

We arrived at Addis Ababa early in the morning and I was pleased to see Dr Aberra at the airport. We travelled with Dr Aberra to Hawassa and reached Hawassa in the late afternoon. Our stay was arranged at Haroni International Hotel. After some rest we came to the hospital to assess equipment and theatre facilities. I was disappointed to see that instruments were not put in a proper box. Dr Aberra informed me that recently there was a significant change within the nursing department in the hospital and Yeshi, who was looking after all the endoscopic instruments, has been moved to a different unit. We spent nearly three hours putting instruments together for a TURP on Monday. We travelled back to the hotel at nearly 8.30pm and had dinner. After dinner we discussed our plan for Monday and decided to put the instruments in order first.

#### **Monday 14<sup>th</sup> October 2013**

Dr Aberra sent a car from the hospital to pick us up from the hotel at 8.00 a.m. We arrived at the operating theatre. We decided to sort out all the equipment, diathermy and camera before embarking on any surgical activities. We spent all day setting up the instruments in proper sets and teaching the new theatre nurse about the equipment. Along with Dr Aberra, I went to the medical equipment store to get some steel trays and we prepared all instrument trays for different operations such as cystoscopy, TURP, biopsy and optical urethrotomy. In addition we prepared a list of all instruments (Appendix 1, 2 & 3). We went through the diathermy settings and functionality. We finished at nearly 2.30pm and organised to do a cystoscopy and TURP on Tuesday morning. In the evening we decided to move our hotel from Haroni due to various reasons to a different hotel, namely Ker-Awud.

#### **Tuesday 15<sup>th</sup> October 2013**

We left the hotel at 8.00 a.m. and took a Bajaj auto to reach the hospital. Dr Aberra was waiting for us and we went to theatre. Dr Aberra had listed three cases: two

rigid cystoscopies and one TURP. Tuesday 15<sup>th</sup> October was a local holiday. It was nice to see that all theatre staff had turned up to do the list.

The first case was a young lady three months post hysterectomy suffering from haematuria. Dr Aberra performed a rigid cystoscopy under local anaesthesia. This demonstrated a possible ureterovesical fistula. Dr Aberra performed a rigid cystoscopy well. Although the theatre sister was new for an endourological procedure, she managed to provide the necessary equipment for the operation. It was interesting to see use of sterile gown as a camera cover (picture).



Formatted: Centered



One sleeve of the theatre gown as a camera cover!

The second case was a post open prostatectomy urinary incontinence. This was performed under local anaesthesia and it showed a wide open prostatic fossa, no sphincteric damage and a trabeculated bladder. Dr Samson, Head of Surgery, also joined us for the list. He scrubbed with Dr Aberra and performed cystoscopy. Dr Aberra took the initiative to set up equipment for a TURP. Before each procedure, we insisted that Dr Aberra should perform the WHO safe surgery check-list. Mr Badrakumar scrubbed with Dr Aberra and Dr Samson for a TURP. I identified different persons to manage diathermy, fluid and the camera system. We ensured that we had two boxes of 5% dextrose in theatre. Dr Aberra performed a cystoscopy and it showed a middle lobe with small lateral lobes. Mr Badrakumar resected a bit of the middle lobe and showed the technique to Dr Aberra. Dr Aberra performed part of the TURP of the middle lobe and the left lateral lobe. We restricted resection time to 40 minutes and I suggested to the anaesthetist to remind Dr Aberra every ten minutes. Dr Aberra showed the scrub nurse how to fill the Ellick's evacuator. Mr. Badrakumar performed initial haemostasis. He also gave the opportunity to Dr Aberra to perform haemostasis with a ball. Dr Aberra managed to use Ellick's evacuator satisfactorily and removed all prostate chips from the bladder. We insisted that he should re-examine the bladder to rule out any residual chips to avoid post-operative problems. At the end a 22 French catheter was inserted with the help of an introducer. It took nearly two hours to finish the operation (resection time 40 min), as preparation time was significantly long. This was the first TURP Dr Aberra had done after my last visit. It was pleasing to see that all theatre staff worked as a team.

At the end I decided to do a de-briefing session and everyone was asked to share their opinion and the majority felt that it was nice to see a new procedure and they would like to do more to become familiar with the procedure. This would allow them to reduce preparation time. Theatre Sister, Mastewal Atinafu impressively managed to provide all equipment for the TURP. I felt that we should have a check-list for TURP and we prepared a document for Dr Aberra to go through the list. This will allow him to ensure all necessary equipment for the procedure is available and again this will reduce the time for preparation. We left hospital at nearly 4.00 p.m. Dr Aberra invited us for dinner at his house. He came to the hotel at 7.00pm and we drove to his house. Dr Samson also joined us.

### **Wednesday 16<sup>th</sup> October 2013**

We reached the hospital at nearly 8.00 a.m. Dr Aberra asked me to give a lecture to the 3<sup>rd</sup> year medical students on lower urinary tract symptoms. Dr Aberra and Mr Badrakumar went to the ward to assess patients for the list. I finished my lecture at nearly 10.00 a.m. and reached theatre to join Dr Aberra and Mr Badrakumar. We had a patient with a 60-gram prostate. Again, Mr Badrakumar started the procedure and Dr Aberra managed to perform part of the TURP. Once more, the theatre staff supported Dr Aberra very well.

The next patient was for a cystoscopy and I was surprised to see that Dr Aberra was going to do a rigid. When I enquired why he was using a rigid cystoscope, his reply was that it is much easier to use a rigid cystoscope. I therefore suggested that he should use a flexible cystoscope as he had 3-4 in his store. I explained to Dr Aberra that if rigid cystoscopes and 30 degree telescope get damaged then he wouldn't be able to perform TURP and secondly, it is much more comfortable for the patient. Dr Aberra told us that he finds it slightly difficult to orientate anatomy with a flexible cystoscope. We therefore decided that he would regularly do one or two flexible cystoscopies during this time. We went through the basics of flexible cystoscopy once again with Dr Aberra. He needed some assistance to perform the procedure. We finished theatre at nearly 2.00 p.m.

I went down to the head of human resources with Dr Aberra and suggested the importance of having trained staff for a period of time in theatre to get familiar with new procedures. Unfortunately, I could not meet the medical director or hospital manager as they were busy in meetings. Dr Aberra arranged transport for me for Thursday to go to Addis Ababa. We sat with Dr Aberra and agreed an action plan for him to work on. I did mention to Dr Aberra that pre-visit preparation was sub-optimal and he could have done more to prepare himself for this visit. Dr Aberra realised his deficiency and agreed to work on it. Dr Aberra also informed us that he has come out of on call surgical rota and now onwards he will be covering only urology. We came back to the hotel nearly 7.30 p.m. and prepared a check-list (Appendix 4) and action plan for Dr Aberra.

### **Thursday 17<sup>th</sup> October 2013**

I left Hawassa early in a hospital car. I reached Addis late evening and stayed in a hotel overnight.

### **Friday 18<sup>th</sup> October 2013**

I took an early morning flight to Lusaka and reached Lusaka late afternoon. Dr Nenad came to the airport to pick me up and dropped me at the hotel. In the evening Dr Nenad took me for dinner and I returned back to the hotel early to catch up with my sleep.

I continued regular discussions with Mr Badrakumar on Skype from Zambia. While in Zambia, Mr Pedro Campillo from Spain contacted me and was willing to visit Hawassa in December for 3 weeks. After coming back to the UK, I managed to organise his trip to Hawassa.

### **What was good?**

- New theatre staff members were very enthusiastic and worked as a team.
- Dr Aberra is going to be on call for only urology now. This will give him more time to develop urology.
- An inventory list of instruments was prepared with Dr Aberra.
- Introduction of WHO check-list and TURP equipment check-list.
- Reinforced equipment care.

### **What could have been better?**

- Pre-visit preparation by Dr Aberra was suboptimal.
- Endoscopic equipment storage was unsatisfactory.

### **Reflection by Mr. Chandrasekharan Badrakumar (12<sup>th</sup> October – 2<sup>nd</sup> November 2013)**

#### **Introduction**

This was my first visit to Hawassa. I learnt from Mr. Shekhar Biyani about the plan to develop lower tract endoscopic operations (BNI, TUIP, TURP, Optical Urethrotomy and Cystolitholapaxy). Mr. Biyani had visited Hawassa several times from 2010 and has developed instruments availability in theatre.

Dr. Aberra Gobezie is a local general surgeon with a vision to develop urology in Hawassa University Referral Hospital. He had spent nearly 12 months in the urology department at Christian Medical College, Vellore, India. I had visited him in the UK when he came over here to attend BAUS annual meeting. He has a great willingness to learn. He is ambitious and perseveres despite difficulties in order to achieve his goals.

**Preparation & travel**

I took time to prepare myself for my journey to Hawassa. My hospital administration was happy to grant me two weeks of professional leave; to which I added one week of annual leave to allow me to spend a total of three weeks with Dr, Gobezie. I got myself fully immunised. I packed my bag and necessary disposable kits for the trip. I travelled to Addis



Ababa along with Shekhar on 13<sup>th</sup> Oct. On arrival Aberra received us at the airport. We went by road (275km in 7hrs) to Hawassa the same day.



Formatted: Centered



*Dr. Aberra Gobezie & Mr. Shekhar Biyani*

After little rest and freshening up that evening we visited the hospital and started inspecting the operating theatre and instruments available.

**Initial observation**

The equipment that Shekhar had provided through UROLINK along with other endoscopic instruments were all found in one box. Every set was dismantled and put in one pile. The instruments were not properly maintained. Shekhar was a bit

frustrated at this point. Dr. Aberra was trying to give his side of explanation but that was not going to help us.



Formatted: Centered



*All in one- equipment tray!!*

There were flexible cystoscopes that Dr Aberra has not used in the last year.



#### **Solution**

Shekhar and I had a long chat that night. Next day we visited theatre and spent time assembling the instruments into sets specifically for procedures like cystoscopy, optical urethrotomy, trans urethral resection and cystolitholapaxy. We decided to teach Dr Aberra to look after the instruments. So even if the nursing staff were changed, he



could teach the new staff and carry on with the above procedures. We made two separate lists of Storz and Olympus sets for procedures (Appendix 1 & 2).

**Shekhar left to Lusaka on 16<sup>th</sup> Oct**

**After Shekhar's departure**

I set up a daily routine:

Morning and evening routine ward rounds to see pre & post op patients.

Patient selection for operation

Plan the list for theatre

Team briefing to discuss that day's plan in theatre  
Team de-briefing to discuss that day's list, problems and solutions.  
Build team working and leadership



Formatted: Centered

*Dr. Gobezie on ward round.*

Before every operation, I sat with Dr Aberra and explained to him about the operation steps. I scrubbed with him for every procedure and made him do flexible cystoscopy, bladder neck incision and TURP - middle lobe resection. For optical urethrotomy, he had some skill and I had to fine-tune his technique and taught him to use half moon sheath for catheter insertion.



WHO pre op safe surgery check list, TURP check list  
-and patient positioning in progress

Formatted: Centered

### **My impression**

Dr Aberra still needs more practice with flexible cystoscopy to improve his orientation. He should practice "potato resection" to improve resection skills and hand eye co-ordination.

### **Achievements with Dr. Gobezie and his team in 3 weeks**

- Everyone in the team realised that surgery is teamwork
- Introduction of WHO checklist and TURP instrument checklist (Appendix 3)
- Dr. Gobezie learnt about urological instruments, their care and maintenance
- He agreed to maintain theatre discipline, leadership and teamwork
- He learnt proper patient positioning for the procedure
- He learnt to use flexible cystoscopes and agreed to use flexible cystoscopy instead of rigid instruments for diagnostic cystoscopy.
- He improved his technique of optical urethrotomy
- He did TURP and BNI but required a lot of assistance by myself. Hand to eye co-ordination and awareness of position were poor
- He learnt Millin's prostatectomy
- He learnt to use the Bard kit for SPC insertion.
- Introduced separate urology logbook in theatre
- Inventory of instruments (Appendix 5)

### **Recommendation**

- Continue the skills achieved in 3 weeks
- Practice resection on potato to improve hand eye co-ordination
- Continue to practice TURP under supervision
- Get steel trays for each procedure set to prepare, autoclave and store them safely
- Regular use of flexible cystoscopy for diagnostic cystoscopy
- Follow WHO checklist and instrument check list for TURP
- Explore the possibility of using water instead of 5% dextrose for Electro resection during TURP and BNI (method explained in Uroeducation (<http://uroeducation.org/defaultforum.asp>) discussion on "Challenges big prostate in Ethiopia")

Field Code Changed

**Other issues**

Post operative patient monitoring was suboptimal. Adequate thermometers are not available. Very often post-op instructions were not followed. Their orientation to uro-sepsis was not good. Laboratory facility is not adequate. There were three cases of uro-sepsis (Appendix 5) in post-operative patients (1 TURP and 2 optical urethrotomy). One patient died. There was no regular mortality and morbidity meeting.

I arranged for the mortality to be discussed on their morning surgical meeting. I spoke in the meeting about poor post-op care and stressed on the importance of post op care for successful outcome. I did a presentation to the surgical team, trainee doctors and MSc students on Urosepsis to improve their awareness



*Vital Signs chart: Before & After*

**Formatted: Centered**

There was some response to my efforts. Before I left Hawassa Dr. Gobezie arranged for a farewell dinner. Mr Ato Wondamu Aklilu Managing Director, Dr. Zerihun Geberemichael Dean of college Ato Brahan Meshesha Vice Dean, Dr Tzazu Tefeara Head of school of Medicine and CEO, Dr Henok Tadele Medical Director, Dr. Samsson Demissie Head of Surgery and rest of Surgical team also came for the dinner.



*The Team: Dr. Samsson Demissie, Mastewal Atinafu,  
-Worshu Gelebo, Dr.Gobezie and myself*

**Acknowledgements**

We would like to thank Mr Ru MacDonagh Chairman, UROLINK and committee members for continued support.

†

**Appendix 1****Instrument inventory Oct 2013**

OTIS URETHROTOMY SET (STORZ)		
OTIS URETHROTOME	1	27578A
BLADE	2	

CYSTSCOPY SET – 1 (STORZ)		
SHEATH – 22F	1	2702688
OBTURATOR	1	2702680
BRIDGE	1	27025GF
BUNG	2	

CYSTSCOPY SET – 2 (STORZ)		
SHEATH - 20	1	27026C
OBTURATOR	1	27026CO
BRIDGE	1	27025GF
BUNG	2	

OPTICAL URETHROTOMY SET (STORZ)		
---------------------------------	--	--

SHEATH	1	27068D
HALF MOON SHEATH	1	27068F
WORKING ELEMENT (Straight handle)	1	27050E
BLADE	2	27069K
BUNG	1	

TURP SET (STORZ)		
OUTER SHEATH	1	27040SL
INNER SHEATH	1	27040XA
OBTURATOR (Deflecting)	1	27048CK
LONG BRIDGE	1	27068CD
WORKING ELEMENT	1	27050D
WATER TAP	1	
ELECTRODE CUTTING LOOP	2	27050G
ELECTRODE KNIFE (BNI)	1	27050L
ELECTRODE ROLLER BALL	1	27050NK
ELECTRODE CABLE	1	
ELICK EVACUATOR	1	
DIATHERMY CABLE	1	
CATHETER INTRODUCER	1	

## **Appendix 2**

### **Instrument inventory Oct 2013**

OTIS URETHROTOMY SET (OLYMPUS)		
OTIS URETHROTOME	1	
BLADE	2	

CYSTOSCOPY SET – 1 (OLYMPUS)		
SHEATH – 21F	1	A20913A
OBTURATOR	1	A20905A
BRIDGE	1	A20976A
BUNG	2	

OPTICAL URETHROTOMY SET (OLYMPUS)		
SHEATH	1	
HALF MOON SHEATH	1	
WORKING ELEMENT (Straight handle)	1	
BLADE	2	

BUNG	1	
------	---	--

TURP SET (OLYMPUS)		
OUTER SHEATH	1	A22021A
INNER SHEATH	1	A22041A
OBTURATOR (Deflecting)	1	A22085A
VISUAL OBTURATOR	1	A22071A
WORKING ELEMENT	1	S15114/1
WATER TAP	1	
ELECTRODE CUTTING LOOP	2	WA22503D
ELECTRODE KNIFE (BNI)	1	A22255C
ELECTRODE ROLLER BALL	1	WA22351C
ELECTRODE CABLE	1	A00012A
ELICK EVACUATOR	1	
CATHETER INTRODUCER	1	

**Appendix 3**

**Instrument inventory Oct 2013**

Company	Procedure set	Instrument	Size	Number	Notes
Storz	Cystoscopy set 1	Sheath	22	1	
		Obturator		1	
		Bridge - 2 working channel		1	
	Cystoscopy set 2	Sheath	20	1	
		Obturator		1	
		Bridge - 2 working channel		1	
	Cystoscopy set 3 (Tekno)	Sheath	23	1	
		Obturator		1	
		Bridge - 2 working channel		1	
	TURP Set 1	OUTER SHEATH	26f	1	
		INNER SHEATH		1	
		OBTURATOR (Deflecting)		1	
		LONG BRIDGE		1	
		WORKING ELEMENT		1	
		WATER TAP		1	
		ELECTRODE CABLE		1	Storz for Erbe
TURP Set 2	OUTER SHEATH	26f	1	Incomplete	
	INNER SHEATH		1		
	OBTURATOR (Deflecting)		1		
	LONG BRIDGE		1		
	WORKING ELEMENT		1	Damaged scope channel	
	Water tap		1		
TURP Set 3 (Tekno)	OUTER SHEATH	26f	1	Incomplete	
	INNER SHEATH		1		
	OBTURATOR (Deflecting)		1		
	OBTURATOR (Non Deflecting)				
	ELICK EVACUATOR		1		
	Bladder wash syringe		1		

		glass			
		Bladder wash syringe glass		2	Broken
		Bladder wash nozzle		2	
		Bladder wash nozzle adapter for Olympus sheath		1	
	OIU Set 1	Sheath	21	1	
		Working element		1	
		Half moon sheath		1	
		Water tap		1	
	OIU Set 2	Sheath	21	1	
		Working element		1	Damage - cannot hold blade
		Half moon sheath		1	
	Urethrotomy set	OTIS with Blades		1	
	Urethral dilator	Clutton's male		1	
		Straight female		1	
		Telescope	0	2	
			30	1	
		Tekno	30	1	Techno
	Diathermy cable	for Storz to Storz?		3	? To be tested ? Given by urolink
	Diathermy machine	Storz Autocon 200 (with reusable patient plate and foot pedal)		1	? To be tested ? Given by urolink
	Spare instruments	Non deflecting Obturators (Cystoscope)		2	
		Alberon Bridge (working condition)		1	
<b>Olympus</b>	TURP set 1	OUTER SHEATH	27f	1	
		INNER SHEATH		1	
		OBTURATOR (Deflecting)		1	
		WORKING ELEMENT		1	
		WATER TAP		1	
		ELECTRODE CUTTING LOOP		2	
		ELECTRODE KNIFE		1	

		(BNI)			
		ELECTRODE ROLLER BALL		1	
		ELECTRODE CABLE		1	
	TURP set 2	OUTER SHEATH	27f	1	
		INNER SHEATH		1	
		VISUAL OBTURATOR		1	
		WORKING ELEMENT		1	
		WATER TAP		1	
		ELECTRODE CUTTING LOOP		2	
		ELECTRODE KNIFE (BNI)		1	
		ELECTRODE ROLLER BALL		1	
		ELECTRODE CABLE		1	
	TURP set 3	OUTER SHEATH	27f	1	Incomplete
		INNER SHEATH		1	
		OBTURATOR (Deflecting)		0	
		Working element			
		ELICK EVACUATOR		1	
	Cystoscopy set 1	Sheath	21	1	
		Obturator		1	
		Bridge - 1 working channel		1	
	Cystoscopy set 2	Sheath	23	1	
		Obturator		1	
		Broken Alberon Bridge		1	
	OIU set 1	Sheath	22	1	Incomplete
		Working element		1	No half moon sheath & Blades
	Others	Stone ronger (Crocodile)		1	
		Stone punch		1	
		Biopsy forceps		1	
		Telescope	30	2	
			12	2	
			70	1	
			30	1	Damaged optics

	Diathermy cable	Erbe for Olympus		1	
	Diathermy Machine	Erbe		2	? Given by urolink
	Urethrotomy set	OTIS with Blades		2	(Broken)
	Spar instruments	Inner sheet (TURP)		1	
		Deflecting obturator		1	
		Non deflecting obturator		2	
<b>ACMI</b>	Camera	Camera (No model number)		1	Wrong plug
	CCD coupler	CCD coupler (No model number)		2	Will not fit camera
	Light source	Xenon 300 watts		1	fit wolf, olympus, storz and ACMI
<b>Olympus</b>	Light Source	XLS 300		2	fit wolf, olympus, storz and ACMI
	Light source	Storz Halogen 150		3	
	Light source	Storz Halogen twin 250		1	
	Light source	Tekno Light H 250 D		1	

**Appendix 4**

**TURP Check List**

**(In addition to WHO safety check list)**

- 1. Blood group and cross match
- 2. Antibiotics
- 3. Resectoscope set with light cable
- 4. Correct Telescope
- 5. Diathermy cable and electrodes
- 6. Ellick's evacuator
- 7. 3-way catheter
- 8. Catheter introducer
- 9. Diathermy on TUR setting
- 10. Camera system
- 11. Irrigation 20 Liters (Minimum)
- 12. Bladder syringe in theatre
- 13. Person responsible for
  - Irrigation -----
  - Camera and diathermy -----
  - Time keeper -----

**Mandatory**

## Appendix 5

### Operations performed

Flexi cysto	16
Urethral dilatation	2
SPC insertion	1
Optical urethrotomy	6
TURP	7
BNI	2
TURBT	<u>2</u>
Cystolitholapaxy	1
Millin's	<u>1</u>
<b>Total</b>	<b>37</b>

### Morbidity and mortality

Urosepsis	<u>3</u>
Death	<u>1</u>

| Bladder tumors 2 (~~b~~Both ~~p~~Post ~~t~~Trans-vesical prostatectomy)