NOTES OF ACHALASIA PATIENTS MEETING HELD ON
WEDNESDAY, 9TH MARCH 2016
AT BRAMPTON HOUSE, ST JOHN AND ST ELIZABETH HOSPITAL

The meeting was arranged by Amanda Ladell, Alan Moss and Mr Majid Hashemi to discuss achalasia issues. There were approximately 30 people present, of which 25 had the achalasia condition.

ADVANCE ASSESSMENT OF OESOPHAGEAL MOTILITY IN ACHALASIA

An illustrated talk was given by Dr. Anthony R. Hobson, Consultant Clinical Scientist who is Clinical Director of the Functional Gut Clinic, a private clinic with a satellite at Spire TW that also serves eight NHS services in UK for upper and lower GI issues. This clinic is the first GI physiology service in the UK to have a UKAS/IQIPS accreditation (equivalent to JAG in endoscopy). The team comprises clinical scientists, clinical physiologists, dieticians and a biofeedback nurse. Manometry and impedance testing is a much less unpleasant experience nowadays because the catheter is much thinner.

Old style manometry: (more invasive)

Modern High Resolution Oesophageal Manometry and Impedance – catheter much thinner. 8 Fr 36 uni-directional solid state pressure transducers and 16 pairs of impedance ring electrodes. Cleaned and sterilised in 5-minutes with Tristel Wipes guaranteed for 300 uses. High resolution oesophageal manometry, impedance takes 3 mins, with or without anaesthetic

HRM and Impedance - decode

“Warmer” colours indicate higher pressure

Purple = low impedance (usually liquid)
Blue = high impedance (usually air / gas)
Example of a colour plot during ‘normal’ swallowing of liquid:

The procedure is based on:

Symptoms - Physiology - Function - Behaviour - Accurate Diagnosis - Effective treatment

There are typically ten 5ml swallows during the test, and a mixture of textures (viscous and solid). This conforms to the ‘Chicago’ classification system /protocol which is treated as guidance rather than dogma.

Multiple Rapid Swallows involve five 2ml +/- a self-timed 200ml drink.

Meals involve difficulty in swallowing (dysphagia) and rumination process, so tests replicate its conditions, with patient sitting down as if for a meal, trying to reproduce the symptoms so that the cause can be accurately diagnosed and patients’ concerns addressed properly.

There are three sub-types of achalasia, and defining which sub-type is important as Type 2 is the sub-type that responds best to treatment.

Type 1 – Little pressurization / dilated oesophagus. Little pressurisation apparent, but there is some tone in the oesophagus - water just sits there, and residual pressure builds up. This causes the patient either to belch or vomit (when the upper oesophageal sphincter is forced open before the lower oesophageal sphincter to relieve the pressure); or the pressure causes food to be pushed down into the stomach. The oesophagus can be either hypermotile (excessive motility or muscle movement); or can become more dilated, with less pressure. The pressure levels can indicate when the oesophagus is not relaxing.
Spasms can be identified and the muscle area involved for a longer myotomy to be considered.

**Type 2 - Oesophageal body pressurized, often with less dilation.** Often associated with belching and squeezing, and involves pressure from above but with nothing going through to the stomach. There can be different effects for hot and cold food / drink being swallowed. Type 2 responds best to treatment. Dilatation and myotomy works well. If the fundoplication is wrapped too tight, it can cause spasms that can be seen on the manometry colour plot.
Type 3 – Spasm in the distal (lower end) oesophagus (vigorous achalasia). Spasm at bottom of oesophagus, may need dilatation.

Other illustrations:

Viscous Boli:

![Impedance colour-plot showing poor clearance of viscous boli](image1)

Liquid Boli

![Impedance colour-plot showing poor clearance of liquid boli](image2)
Liquid Bolus:

Timed barium swallow

200 mls – 1 min shots to see how oesophagus is clearing after dilatation.
Summary:

- High Resolution Manometry and Impedance testing combines sensitive physiological measurements with observations of the functional consequences of these physiological events.
- This together with behavioural observations and symptom profile increases the clinical translation of the results.
- Have we reached the ‘tipping point’ where using conventional manometry and pH has become obsolete and unacceptable?
- Take home message – Just because you can’t see it, it doesn’t mean that it’s not important (and vice versa)

Importance of following up with tests after surgery to check on its effectiveness (but NHS may not always do this)

24 hrs reflux testing not always justified if the manometry and impedance tests have already confirmed the diagnosis of achalasia.

Reflux can be a problem after some surgery. In some cases, Impedance and pH catheters can be put into place in the operating theatre to check that fundoplication wraps are adjusted correctly.

These tests can also test efficacy of PPIs (proton pump inhibitors).

Spasms can alter immune system – nerve endings are damaged and not performing functions of firing and inhibiting the peristalsis contractions.

Achalasia can be a natural reaction to a stricture in the bottom of the oesophagus – and causes can be mechanical or neuropathic. Cold temperature can activate different set of nerves. There are stages of chronic neuropathic problems. The treatment can consist of either reducing the mechanical pressure, or cutting the muscles higher up to relieve pressure below.

Oesophageal Multi Disciplinary Team:
A number of medical disciplines are involved in effective treatment:

![The Oesophageal MDT](image)
Dr Hobson was thanked most warmly for his interesting talk.

Other Matters of Interest:

1. There is an Achalasia group in Germany (Achalasia Self-Help Group) and, Antje, the lady who runs it has met Amanda Ladell. There is a symposium on Saturday, 16 April, 2016 near Dortmund, Germany, discussing, amongst other topics, Basics for newcomers, Children and adolescents, Resilience and managing problems, Diet and achalasia, Achalasia and childhood. Contact Amanda Ladell for further details if anybody wishes to attend.

2. This is the fourth meeting held with Majid Hashemi, plus the London Meetup meets once a month, arranged by Amanda Ladell. There has also been one meeting in Guildford arranged with Mr Yuen Soon by Ann Elms and another informal meeting. The Guildford group has merged into the London Meetup group now.

3. Some of the notes from the meetings have been put into the ‘Patients’ Guide to Achalasia’, which will hopefully soon be available on the website. It is hoped to extend the section on manometry. It will be possible to download the booklet.

4. If anyone gives Amanda their email address, she will send the booklet direct.

5. The London Achalasia Meetup website collaborates with the OPA (Oesophageal Patients’ Association).

Latest developments / Question and Answer Session with Mr Majid Hashemi

Co-ordinated muscle contractions from top to bottom of the oesophagus can improve after surgery.

Achalasia involves the loss of inhibitory action of nerve endings as they no longer inhibit the natural muscle actions involved in swallowing. In the long term, the oesophagus eventually gets tired of coping with this.

Gastric banding almost always induces a form of achalasia (Mr Hashemi used to do five a week but now this number has reduced).

When you relieve the obstruction, the oesophagus typically goes back to normal size and there is an improvement in peristalsis. Myotomy can achieve this.

Although dilatations can be effective, one should not keep on having dilatations.

Chest pain can have many different causes.

If barium is not going through to the stomach, there is an obstruction of some sort.

Surgery involves relieving the mechanical, physical obstruction.

There can be many issues arising after a myotomy, and sometimes spasms continue, or may even start, after the surgery.

Achalasia involves loss of inhibitory ganglia (nerve endings) sending signals to the brain for swallowing muscles to operate.

Life events can be a cause and stress has a role.

Common presentation for achalasia:

- Dysphagia
- Regurgitation
- Reflux
• Pain
• Respiratory problems
• Laryngeal problems
• The long-term effect on lungs could be aspiration pneumonia

Diagnosis and investigation:

• History
• Endoscopy
• Barium swallow
• *Often these are sufficient for a diagnosis*
• Manometry – this is done in less than half of patients now as it is very hard to place the end of the catheter past the tight lower oesophageal sphincter and into the stomach in order to obtain accurate readings.

The condition can affect people of all ages, including children and teenagers.

Treatment:

Two parallel strategies:

• Avoid stress and exacerbating factors
• Medical treatments
  o Endoscopic treatments – dilatation, botox
  o Surgery – myotomy is effective and gives improvement in perhaps 90% of patients, but prudent estimates are that 80% of patients will get significantly better.
  o Spasms – sometimes myotomy improves this.

“The first shot is the best chance of getting it right” – therefore thorough analysis and diagnosis is important.

Each dilatation makes surgery harder. If you are effectively treated, you are likely to remain better.

Treatment for Spasms:

• Calcium channel blockers
• Nitrates
• Dietary
• Stress reduction
• Buscopan
• Atropine

For adolescents with achalasia, it can be helpful to get a psychologist involved to help them come to terms with the condition and its consequences.

Keeping a food diary of when you get symptoms can be helpful for diagnosing the precise details of the condition.

Achalasia is not known to be hereditary and there is therefore no known test to see if you can pass it on. No problems if an achalasia patient is pregnant.

Question on peristalsis. When nerve endings are destroyed, will the nerves regrow? No evidence but 60% of patients have improvement once the obstruction is removed.
One achalasia patient had symptoms at the age of 11-12, was diagnosed at 18, had Heller’s Myotomy and had second Heller’s Myotomy at age 22 in another country. The second myotomy failed, the wrap was upside down, the oesophagus had lost muscle tone.

There is a real difficulty with patients who have no oesophagus function. In some cases patients may need a longer myotomy to deal with muscles further up the oesophagus.

A bypass has been done in some patients who are getting severe acid reflux to direct acid away from the oesophagus.

The end of the line treatment is to remove the oesophagus.

One patient had recently had an oesophagectomy (removal of oesophagus) as her oesophagus was ‘burnt out’. She had been aspirating, had chest infections, choking at night, had achalasia for 20 years or so, having been diagnosed at 10, a Heller’s Myotomy at 20 and another one that did not work. She had come to the meeting a week or so after the operation to tell others about the surgery, and was congratulated that she was doing well.

**Reflux:**

- Real reflux
- Fermentation
- Anti-secretory drugs – eg ranitidine
- PRN (as needed) treatments to soothe effects of reflux
- Relief of obstruction
- Improvement in gastric emptying

**Follow up:**

- Symptoms check
- Barium swallow test
- OGD (Oesophago Gastric Duodenoscopy) – miniature camera placed down throat
- Awareness of potential increasing size of oesophagus

**POEM:**

Per Oral Endoscopic Myotomy is new, and involves cutting into lining of the oesophagus by means of an endoscopic technique. Two hours’ long procedure. No provision for fundoplication which is often needed to avoid future reflux.

**Acid Reflux problems (answer to question):**

- Could follow FODMAP diet
- Omeprazole – not good long term as it could lead to osteoporosis, can get other bacteria growing, no significant cancer risk, gut problems, not a natural thing to reduce acid long-term as stomach needs acid for digestion
- If mild, use Gaviscon Advance or Sucralfate which creates protective lining for the oesophagus

1. Take PPIs for one month or so
2. Then endoscopy and biopsy
3. If benign, investigate pH
4. Adjust fundoplication wrap if needed
Other questions and issues:

Persistent obstruction at the lower end can cause loss of oesophageal function.
No standardized follow-up procedure
Can have revision fundoplication
A 15-year old who has recently had myotomy should have a follow-up in six months to a year. There is evidence to show you can fix it if it’s not completely right first time.
Clinical follow-up, then barium, then endoscopy, and minimally-invasive endoscopy.

Four or five major teaching hospitals carry out this procedure and there will now be surgeons who can do laparoscopic surgery. Mr Hashemi has not had any serious complications with myotomy.

GI surgeons can be asked how often they do the procedures and their results. Confident surgeons will not mind answering these questions.

There is difficulty in burping for some people after fundoplication. Peppermint oil can be a help.

Links

OPA website:  www.opa.org.uk/pages/achalasia.html
MeetUp site:  http://www.meetup.com/achalasia-104/

Contacts

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