OUTPATIENT OPERATIVE

HYSTEROSCOPY

Martin Farrugia MD MRCOG
East Kent Hospitals NHS Trust
Concepts

- Can you do a diagnostic hysteroscopy in a clinic?
- Can you do a Pipelle biopsy without local anaesthesia?
- Do you ever see small intra-uterine pathology?
Outpatient Surgery: Without anaesthesia???
MONOPOLAR
BIPOLAR
Why is Versapoint Technology innovative?
Versapoint 5F Electrodes

• **Ball Electrode:**
  - small active electrode area
  - reduced lateral tissue damage: precise
  - very good hemostatic/desiccation effect

• **Spring Electrode:**
  - larger active electrode
  - wider vapour pocket
  - excellent ablating instrument

• **Twizzle Electrode:**
  - 3mm long active electrode
  - the cutting instrument
## Depth of Thermal Necrosis

<table>
<thead>
<tr>
<th>Electrode</th>
<th>Mean Depth of ZTN (mm)</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ball</td>
<td>0.811</td>
<td>0.156</td>
</tr>
<tr>
<td>Spring</td>
<td>2.695</td>
<td>0.163</td>
</tr>
<tr>
<td>Twizzle</td>
<td>0.976</td>
<td>0.108</td>
</tr>
<tr>
<td>Loop</td>
<td>0.346</td>
<td>0.058</td>
</tr>
<tr>
<td>Zero Degree</td>
<td>1.337</td>
<td>0.133</td>
</tr>
</tbody>
</table>
VERSAPoint Technology

- Predicable Tissue Effect
- Vapour Pocket
  - Requires tissue contact
  - Micro-second delay in generation
- Insulation Between Electrodes
  - Does not cut
  - If electrode sticks, withdraw electrode slightly
BASIC EQUIPMENT
VERSASCOPE

- Continuous flow, 7F operating sheath
- Outer Diameter  3.5 mm
- Allows immediate conversion from diagnostic to operative
Mechanical 7F Instruments
WHY SALINE AS DISTENSION MEDIUM?
The Goals of Fluid Management are to:

- maximise visualisation
- minimise intravasation
Normal Saline

- Metabolically inert
- Iso-osmolar
- Rapid kidney excretion
- Complications
  - Volume expansion
  - Left ventricular failure
  - Pulmonary oedema
Normal Saline

In an Outpatient Clinic

• Allows immediate conversion from diagnostic to operative hysteroscopy

• Easy to flush blood and other debris out

• Safer profile than non-ionic media
OUTPATIENT PROCEDURES
Outpatient Hysteroscopy Service
Clinical history / Physical exam / TVS - SIS

Hysteroscopy and Biopsy

7F Instruments
Mechanical Bipolar Electrosurgery
(See and Treat)
<table>
<thead>
<tr>
<th><strong>Clinic Date:</strong></th>
<th><strong>Hospital Number</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Surname</strong></td>
<td><strong>First Name</strong></td>
</tr>
<tr>
<td><strong>D.O.B.</strong></td>
<td><strong>Age:</strong></td>
</tr>
<tr>
<td><strong>B.P.</strong></td>
<td><strong>Weight:</strong> (Kg)</td>
</tr>
<tr>
<td><strong>Height:</strong></td>
<td><strong>BMI:</strong></td>
</tr>
</tbody>
</table>

**Presenting Complaint:**

**Treatment so far:**

<table>
<thead>
<tr>
<th><strong>Gravida:</strong></th>
<th><strong>Para:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LMP</strong></td>
<td><strong>Cycle</strong></td>
</tr>
<tr>
<td><strong>Clots:</strong></td>
<td><strong>Yes/No</strong></td>
</tr>
<tr>
<td><strong>I.M.B.</strong></td>
<td><strong>Yes/No</strong></td>
</tr>
<tr>
<td><strong>Premenstrual spotting</strong></td>
<td><strong>Yes/No</strong></td>
</tr>
<tr>
<td><strong>Dyspareunia</strong></td>
<td><strong>Yes/No</strong></td>
</tr>
<tr>
<td><strong>Smear:</strong></td>
<td><strong>Bowel/Bladder symptoms:</strong></td>
</tr>
<tr>
<td><strong>Wants to keep fertility:</strong></td>
<td><strong>Yes/No</strong></td>
</tr>
</tbody>
</table>

**MEDICAL CONDITIONS:**

**MEDICATIONS**

**ALLERGIES**

---

**Bimanual Examination:**

<table>
<thead>
<tr>
<th><strong>Uterine Size:</strong></th>
<th><strong>Position A/V R/V Axial</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regular/Irregular</strong></td>
<td><strong>Tender/Not tender</strong></td>
</tr>
<tr>
<td><strong>Adnexal Mass:</strong></td>
<td><strong>Yes/No</strong></td>
</tr>
</tbody>
</table>

**Speculum Examination:**

<table>
<thead>
<tr>
<th><strong>Vulva/Vagina:</strong></th>
</tr>
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<tbody>
<tr>
<td><strong>Cervix:</strong></td>
</tr>
<tr>
<td><strong>Smear taken:</strong></td>
</tr>
</tbody>
</table>

**Hysteroscopy**

<table>
<thead>
<tr>
<th><strong>Satisfactory:</strong></th>
<th><strong>Yes/No</strong></th>
</tr>
</thead>
</table>

**Local anaesthetic:**

<table>
<thead>
<tr>
<th><strong>Yes/No</strong></th>
<th><strong>Dilatation:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ostia:</strong> Left% Right%</td>
<td><strong>Cavity Length cm</strong></td>
</tr>
<tr>
<td><strong>Endometrial sample:</strong></td>
<td><strong>Targeted biopsy</strong></td>
</tr>
<tr>
<td><strong>Versapoint procedure:</strong></td>
<td><strong>Yes/No</strong></td>
</tr>
</tbody>
</table>

**Suggested further management:**
Summary:

Fibroid uterus 8-10 cm x 5.2 cm (See Overlap): Dissection of cavity.
Endometrial polyp (8-10 cm) + several polyps

Action:
SIS "limited" *

* Suggest SIS with balloon catheter

Ultrasonographer:
CONSULTANT: ____________________________________________

TO DOCTOR: ____________________________________________

PRESENTING SYMPTOMS: 

FINDINGS:  
A) Transvaginal Ultrasound
B) Hysteroscopy

DIAGNOSIS: 

RECOMMENDED TREATMENT: 

FOLLOW-UP ARRANGEMENTS: 

Doctor’s signature: ___________________________ Date: ____________

Doctor’s name(printed): ________________________

Chairmen:  
The Right Honourable  
the Lord Janner of Hoddesdon
Clinic Set-up
A Technique modified!

- No speculum
- No tenaculum
- No local anaesthesia
- Gentle cleansing
STEPS IN TISSUE REMOVAL

1. Assess feasibility
2. Assess size
3. Reduce fragment size
4. Vaporisation will take a long time
5. Do not disconnect completely
6. Finish off all cutting
7. Remove fragments
COMPLICATIONS

• No intra-operative complications
  – Some patients experience cramps, needing post-op NSAIDs

• No post-operative complications

• Patients allowed to go home within 30 minutes.
# Generation of Gas Products

### Bipolar – VersaPoint
- Hydrogen: 51.0
- Carbon monoxide: 25.7
- Carbon dioxide: 6.6
- Ethane: 3.6
- Acetylene: 2.9
- Oxygen: 2.9
- Methane: 2.8
- Propane: 1.7
- Nitrogen: 1.4

### Monopolar
- Hydrogen: 49.0
- Carbon monoxide: 26.1
- Carbon dioxide: 7.5
- Ethane: 4.1
- Oxygen: 3.0
- Acetylene: 3.0
- Methane: 2.5
- Nitrogen: 2.3
- Propane: 1.4

*Munro et al JAAGL 2000 8;4:488-494*
PATIENT QUESTIONNAIRE

• Pain score during procedure 3.2 (range 0-8)

• Satisfaction with clinic 97.2%

• Would return to same clinic if bleeding problem recurred 98.6%

• Would recommend the clinic to a friend 99.5%
LIMITS

• Patient related
  – Intrauterine pressure
  – Operating time

• Technology related

• Costs

• Patients’ Choice
When outpatient surgery is not indicated!

- Large pathology
  - Fibroids > 2 cm
  - Polyps > 3 cm

- Severe adhesions

- Patients’ request
CONCLUSIONS

• Versapoint Electrosurgery can be utilised in Outpatient Hysteroscopy clinics to treat selected patients

• Patient satisfaction with the procedure is high

• The complication rates appear to be low
Thank You