VASECTOMY WORKSHOP
GP CME 2010

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Plan

- Introductions
- Getting started: supervised practice
- Documentation: sources & systems
- Pre-Op: information on failure rates etc, clinical assessment
- Operation: NSV vs scalpel: cautery vs tie: fascial interposition? Sedation? Video
- Post Op: information, contact details, problems, consultant back-up
- Post Vasectomy Semen Analysis
- Post Vasectomy Pain: legal
- Audit: leading to year on year improvements
- Questions: anytime

Participants

- Names
- Minor Surgical Experience
- What do you want to achieve from this workshop?

Outline of my Experience

- GP since 1986 carrying out all minor surgery in 10,000 patient practice; some under GA.
- Trained in cut & tie vasectomy by another GP & visiting surgeon.
- Initially started as service to own patients: expanding over time with internal NHS contracting.
- Switched to NSV in 1998; helped to establish national group of primary care vasectomists: BANSV
- Ended up with independent practice contracting almost 1000 cases per year operating out of 3 centres: mainly NHS funded, some private, some visiting Irish.
- Takes years to establish clinic & reputation: can be destroyed in minutes!

Getting Started

- Minor surgical background helpful
- Confident with local anaesthesia
- Locate a current provider (GP or Surgeon) for training, supervised practice and initial support as you go solo.
- Suitable premises, lighting, instruments, assistance, resus, admin support.

Getting Started

- Careful patient selection: easy ones only initially.
- Allow plenty of time per case: patients stress if kept waiting as will you!
- Think about sedation: oral vs IV
- Arrange semen analysis service with lab
- There will be a learning curve!

Facilities

- Nice room: ceiling maps, music ?
- Entertaining assistant!
- Partners often attend.
- Bench autoclave + ultrasonic cleaner vs CSSD supplied.
- Spare sterile instruments in case you drop some.
- Sutures in case tying off or skin closure needed.

Documentation

- Ensure accurate, consistent & up to date: peer groups, web resources
- Use exisiting info if suitable: why re-invent the wheel?
- RCOG, BANSV, Engender Health
- Helpful to document clinic structure, supplies, patient flow, complaints procedure, audits etc
- Consent: multiple issues to consider
- Operation record & semen analysis notification.
- Contact MPS

CONSENT

- Only requires consent of the man.
- Nice to know that both parties agree!
- Ensure that your detailed explanation has been understood!
- Keep clear records.
- Who should obtain consent?
- MDU presentation

Pre-Op

- Detailed, but clearly written information leaflet given/sent to patient. Own vs RCOG.
- Regret rate higher < 30yrs.
- Include failure rates, complications, reversal problems.
- Sperm storage??
- Consider clinical exam before booking: when to consent?
- Cooling off period
- Book procedure

Complications, excluding failure

- Bleeding <1%
- Infection <1%
- Epididymitis <1%
- Delayed wound healing
- Post vasectomy pain
- Psychological problems
- Reversal requests


SPURT!
OH MY GOD! YOU'VE BEEN RE-ROUTED!

EARLY FAILURE RATES

- 1 in 1-2000
- Due to:
- Early recanalisation
- Duplicate vas deferens
- Operative error

LATE FAILURE RATE

- 1 in 2000 over life-time.
- Due to late recanalisation
- Concept of intermittent re-joins and tests may remain negative.
- Nature always finds a way!
- Paternity testing??!!

Late Failures (**ASERNIP)**

- There were 69 pregnancies reported in 20 studies, regardless of the PVSA protocol
- In the 13 studies that reported on the number of vasectomies, 60 pregnancies were recorded out of 92,184 vasectomies (0.07%).
- Of the total 69 pregnancies, 27 patients had demonstrated azoospermia in at least one PVSA test.
- however, only 7 of these (25.9%) had paternity confirmed by DNA analysis.
- Further semen analyses were reported for 22 patients after pregnancy was confirmed: motile sperm was found in 10 cases, non-motile sperm in 2 cases and 10 were azoospermic.

FEMALE FAILURE RATES

- Early: 1 in 800
- Not possible to check tubal occlusion
- Late: 1 in 100 pregnant after 7 years (Oxford study)
- 1 death per 12,000 ops

ANNUAL FAILURE RATES

- Source: Bandolier (EBM)
- % failure in one year and failure rate per 10,000 women per year.

No contraception	85%	8500
Cap/sponge	39%	3000
Rhythm/F-condom	21%	2100
Diaphragm	18%	1800
Male condom	12%	1200

ANNUAL FAILURE RATES

○ Copper IUD	0.4%	40
○ Depo-Provera	0.3%	30
○ Tubal ligation	0.17%	17
○ COCP	0.08%	8
○ Vasectomy	0.04%	4
○ Mirena		

Pre-Op Clinical Exam

- Check medical history & medication.
- Check testes & vasa normal.
- Check vasa easily accessible. (Tight, thick skinned scrotums are difficult)
- Expect absent testes, forgotten orchidopexy, torsion, trauma, hernias.
- Gives patient an idea of what to expect
- Assess need for sedation
- Answer questions

Operation

- Consent form, recheck medical history
- Skin prep: trim hair; do not shave
- Local anaesthesia: local/vasal block with 27g needle: no needle method
- Avoid adrenaline: conceals peri-operative bleeding
- Vas delivery method: nsv/cut
- Vas interuption method: cautery/tie/clip
- Fascial Interposition: reduces failure, but increases complication rate
- Wound closure: firm pressure: sutures not necessary


EVEN WITH A LOCAL ANAESTHETIC YOU MIGHT EXPERIENCE A SLIGHT TUGGING SENSATION!
YANK!!
PLOP!

NSV vs Incisional method

- Great claims are made about the superiority of one technique over the others. Operator skill and care is probably the most important factor.
- However NSV has 1/10 rate of infection, bleeding & post op pain compared to incisional vasectomy and is the recommended method by RCOG & FPA.
- Gentle tissue handling is vital whatever method you use!

NSV

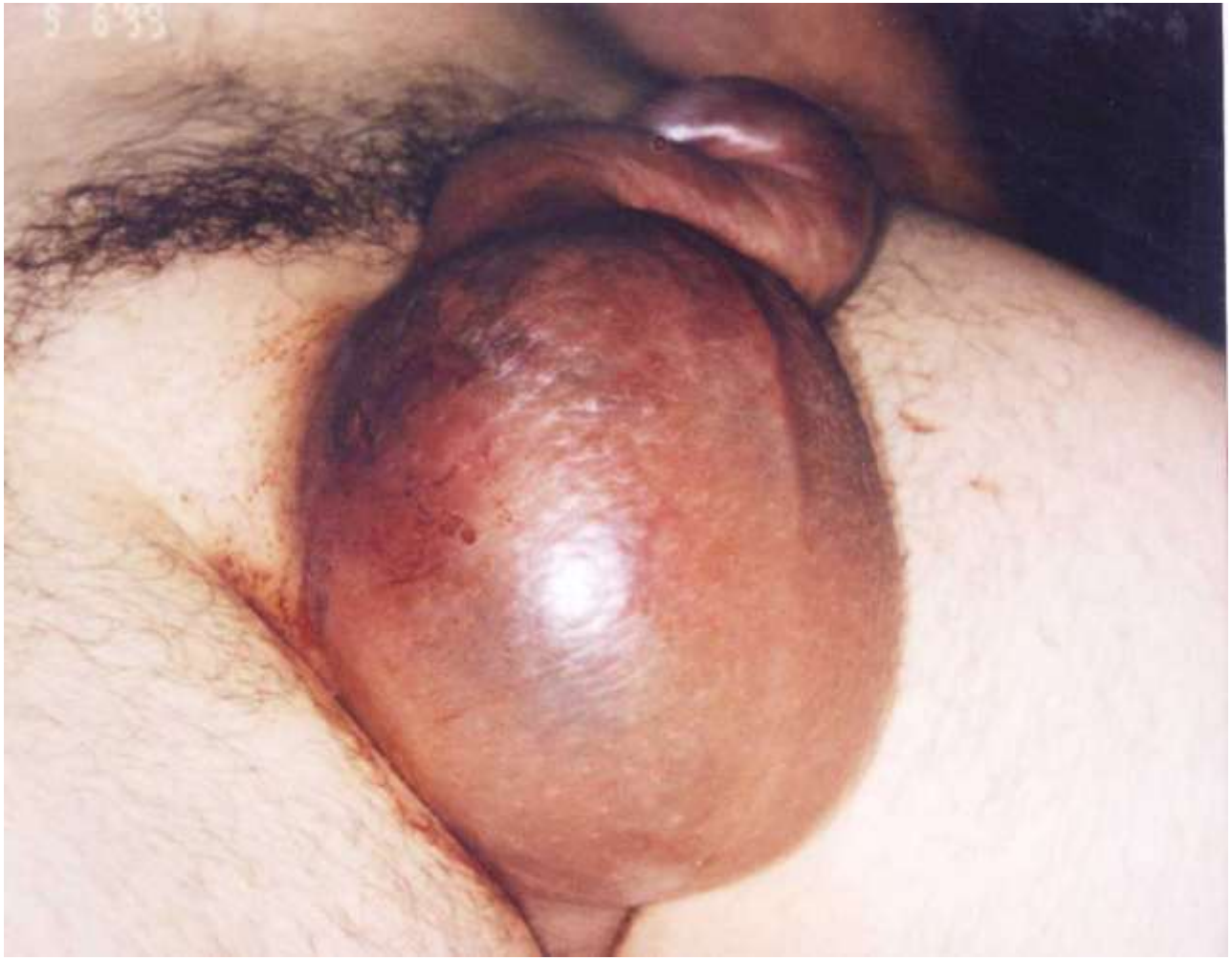
- Developed by Dr Li in China
- Blunt dissection technique minimises risk of bleeding from dartos & peri-vasal tissues.
- Does take a bit of learning!
- Engender presentation.
- Video of vasectomy.

NSV Instruments

Intra-operative problems

- Bleeding: meticulous attention to detail. Check when tissues are not under tension!
- Anatomical abnormality: detect pre-op
- Lost vas: re-acquire, but don’t let it happen! (Spare ring clamp or curved mosquitos useful)
- Nausea, vomiting, fitting: vaso-vagal
- Agitation
- Be prepared to stop & refer, rather than struggle on.

Scrotal haematoma



Histology of vas

- A waste of lab resources!
- Does not confirm success.
- If you are not sure you have the vas, you almost certainly do not!

Sedation

- Needed occasionally to proceed.
- Oral diazepam: need to consent beforehand; not rapidly effective for intra-op problems.
- IV midazolam: rapidly effective, but requires additional skills, experience, monitoring equipment
- Driving home?

Post Op

- Take home information with advice & contact number
- Go straight home: do not stop at pub!
- REST: lie flat 24hrs.
- ICE
- Semen Analysis info & dates

Post Op

- Review problems ASAP to nip in bud.
- Haematoma: most will resolve with time: occasional need to explore & drain: hospital level procedure.
- Pain 3-4 days post op: infection vs epididymitis: try nsaid first, then antibiotics.

Post Vasectomy Semen Analysis

- One test 4 months post op, after at least 20 ejaculations.
- If clear: no further testing needed.
- Immotile sperms: test monthly til clear
- Special clearance after 7 months
- Motile = failure: retest once and discuss re-op vs other methods.


SAMPLES

Post Vasectomy Semen Analysis

- Does not need to be fresh, so can be sent by post.
- Expect 10-20% non-compliance.
- Even worse compliance with repeated testing.
- One reminder to patient, then letter to patient & GP stating unable to confirm success of operation and that contraceptive precautions should be continued.

Post Vasectomy Pain Syndrome

- Enormous variation in reported incidence & severity.
- Rarely significant, but tiny number of cases where claimed to have ruined life.
- Major legal implications if fail to warn pre-op (UK case)
- Usually improves with time, but granulomas may need removing.
- Reduced PVPS ? with open ended or upper vas operation

Audit

- Groan!!!
- Essential for improving your practice & comparing with other providers. Standardisation needed.
- Patient survey 6-12 months post-op
- Network with other providers.
- Be open to new ideas, methods.

Unusual cases 1

- Difficult procedure with what appeared to be multiple, tangled vasa. Patient advised of uncertainty.
- Occ motile sperm on testing??
- Wife then mentioned they needed IVF to conceive!
- Referred to Urologist who didn’t want to touch him! Decided against further surgery.

Unusual cases 2

- Uneventful case.
- 8 months post op patient complained of erectile failure
- Assessed, examined, advised not related to op and to see GP
- Repeated letters of complaint from patients wife alleging failure to warn of this: rebutted as not a recognised complication of vasectomy.

Unusual cases 3

- Uneventful case
- Reported painful swelling 3 days post-op: black & blue
- Visited at home: moderate haematoma: advised best to allow natural resolution. Noted home gym.
- Attempted claim for negligence & compensation for lost earnings rebutted.

Questions

- Electronic copies of presentation, leaflet & forms available.
- Royal College of Obs & Gynae: rcog.org.uk
- British Association of non-scalpel vasectomists: bansv.org
- Engender Health