Sexual Dysfunction in the Neurological Patient: evaluation and management

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Sensitive topic – ‘touchy feely stuff’

- Vulnerable
- Embarrassing
- Uncomfortable
- Blushing
- No eye contact
- Ego
- Boasting
General Population of SCI in UK

- UK population totals – approx 62 million
- Est 40,000 SCI in UK (BASCIP 2001)
- Est 1200 new injuries each year
- In UK x 1 person paralysed every 8hrs, average age 32.6yrs
- Cost annually £500 million
- Not a reportable condition so data is incomplete
Incidence of SD

Men
• General Population
  – 1 in 10 adult males
  – 52% 40 – 70 yrs incomplete impotence
  – 15% 40 – 70 yrs total impotence

Female
• General Population
  – More difficult to ascertain
  – USA 43% of female experience some form of sexual dysfunction at any time

Important that my patients know that it isn’t always a disabled person’s problem
EAU guidelines 2013

ED is a symptom, not a disease. Some patients may not be properly evaluated or receive treatment for an underlying disease or condition that may be causing ED

Basic work up – to include partners

• Pathophysiology of ED – vasculogenic, neurogenic, anatomical/structural, hormonal, drug induced, psychogenic

• Sexual history – previous and current (include IIEF, ?IPSS, Penile hardness score)

• Physical examination

• Laboratory testing

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Presentation of SD in men and women

Organic
• Hypertension
• Diabetes
• Vascular Disease, venous leaks
• Prostatectomy
• Peyronne’s Disease
• Cancer
• Spinal Cord Injury
• Other neurological conditions – back, tumours
• Medication
• Menopause

Inorganic
• Psychogenic erectile dysfunction
• Previous sexual history
• Psychiatric illness

Important that you still take a full medical/sexual history.
Don’t be caught out
Definition of SD in females

Organic
- Spinal Cord Injury
- Other neurological conditions
- Sacral tumours
- Genetic
- Menopause

Inorganic
- Psychogenic causes
  - Previous sexual history
  - Depression
  - Loss of libido
  - Relationship issues
Male SCI

- Upper motor neurone – C1-T12
  - Reflex erections in 95%
  - Ejaculation possible in 5% complete injury and 32% incomplete injury
  - Predominately retrograde ejaculation

- Lower motor neurone (or cauda equina) L1 and below
  - 25% able to have some type of erection
  - Ejaculation possible in 18% complete injury and 70% incomplete injury
  - Ejaculation more of a dribble and not socially convenient

(Fazio and Brock 2004)
PDE5 inhibitors

- Facilitator not initiator of erections
- Selective inhibitor of phosphodiesterase-5 (PDE5)
- Cavernosal muscle relaxation
- Only works in those with reflex erections or some residual erectile function
- Oral medication
  - Viagra, Cialis, Levitra
  - Can be taken every 24 - 48hrs
- Effectiveness = 50-88% erectile improvement (EDA 1999)
- Well tolerated and should be the first line of treatment in SCI (Jia et al 2016)
Contraindications to use PDE5 inhibitors

- Nitrate drugs
  - Enhances effect of nitrous oxide
    - Must not take Nifedipine, GTN or other nitrates
- Recent myocardial infarction
- Unstable angina
- Hypotension
- ?Fit to have sex
- Excessive alcohol consumption
- Illegal drugs
- Grapefruit juice
- Heavy fatty meal
- Smoking can reduce effectiveness
Other treatments

- **Caverject intracavernosal injection**
  - 1.25mcg – 60mcg every 24hrs
  - Risk of priapism
  - Contraindicated in Sickle cell anaemia, anticoagulants, Peyronnes disease and history of priapism
  - 95% effective

- **Vacuum device**
  - can be used daily on its own or in combination with tablets or Caverject
  - 90% effective when used in combination

- **Penile implants**
  - Semi-rigid rods
  - Inflatable device
  - Revision/repair rate 55-60% in spinal cord injury (40% in general population)

- **Vitaros**
  - Cream alprostadil applied locally to penile meatus
  - ?replacing MUSE
SCI perceptions of themselves sexually

Anderson et al 2007

- Direct link between sexual function and quality of life.
- 87.9% sexually active post SCI increased with age of injury
- 83.2% altered sense of themselves as a sexual person
  - Intimacy, sexual need, self-esteem, to keep a partner
- Fear of bladder and bowel accidents
- Autonomic dysreflexia – directly related to bladder/bowel management and sensitivity.
  - Can be sexually stimulating
Marriage and relationships

Delvio and Richards 1996
• Marriage more sustainable if had higher education
• If divorced pre/peri injury then more likely to have a successful post injury marriage
• Women less likely to marry than men and divorce and separation is higher in women with SCI
• Lack of social exposure/accessible buildings, social skills, pre-existing personality/behavioural difficulties

Pearcy et al 2007
• Relationships are more likely to fail in acute rather than rehab stage
• Disempowerment, over assistance, family and friends are motivators though
• Information/education of activities
Body image

‘of all the symptoms associated with physical disability, the most oppressive and destructive is the radical loss of self-esteem’

Barbin and Ninot 2008

Skiing – increased perception of an attractive body. Athletic identity, increased confidence

BACKUP
‘Whatever happened to heavy petting?’

- Intimacy
- Holding hands
- Hugging
- Caressing
- Making time for each other
- Exploration either self or partner
- Make no assumptions about what you can feel or can’t feel
- Positions
- Fear and anxiety
The experience of SCI women having children

- Risk of Autonomic Dysreflexia
- Lack of knowledge and skills amongst Obstetricians and Midwives
- Lack of adaptable equipment and toileting
- Patients are problem solvers
  - Source information and equipment themselves
  - Liaise with SCI unit re medication and wheelchair assessment
Phenomenological Themes

• Feeling of normality and empowerment
• Lack of information to guide them
• Lack of knowledge from HCPs
• Assumptions around pregnancy, childbirth and parenting
• Value of peer support
• Putting baby’s health first
• A medical model of care
• Children adapting to a disabled mother
Important message to give to your patients

You can still have an active sex life

You can still have children if you want to

You still have the same modes of arousal
   Brain, Tactile and Orgasm

It may not be exactly the same as before but can be just as good
Good reading guide


• K D Anderson et al
  The impact of spinal cord injury on sexual function: concerns of the general population
  Spinal Cord (2007) 45, 328-337

• M J DeVivo and J Scott Richards
  Marriage rated among persons with spinal cord injury

• T E Pearcey et al
  Personal relationships after a spinal cord injury

• R Q Leibowitz and A L Stanton
  Sexuality after spinal cord injury: A conceptual model based on women’s narrative
  Rehabilitation Psychology (2007) 52 (1) 44-55

• J Barbin and G Ninot
  Outcomes of a skiing program on level and stability of self-esteem and physical self in adults with spinal cord injury

• UK Management Guidelines for Erectile Dysfunction 1999 and revised 2000
  Erectile Dysfunction Alliance

• Sexuality and Reproductive Health in Adults with Spinal Cord Injury: A clinical practice guideline for health-care professional January 2010
  The Journal of Spinal Cord Medicine Vol 33 No 3 p281-336

• Guidelines on Male Sexual Dysfunction: Erectile Dysfunction and Premature Ejaculation 2013
  European Association of Urologists website www.uroweb.org/