Best Practice in
Transgender Health
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Transgender – Fertility Preservation and Reproductive Options

- Any combination of sexual and gender identity is possible for transgender individuals
- People who identify their gender as different to what was assigned to them at birth.

- Small but substantial population
- More individuals are thinking about future fertility using own gametes.

Transgender patients

- Complex and varied presentations
- Uncertainty regarding ‘best practice’ – on many levels, not just fertility preservation.
- Main medical management has historically been GP’s specialising in Gay/Lesbian treatments
- But many extra considerations in Rx

Hormonal treatments

- Endocrinologists are now managing
- Treatments theoretical and based on US experience
- American society of endocrinology have a statement for care
- This is not a Reproductive statement
- Gynaecologists may play bigger part in general management in the future.

Transgender Health Program - US

- Endocrine therapy for transgender adult
- Gender affirming surgery
- Mental health
- Care for transgender adolescents
- Transgender primary care
- Civil rights of transgender individuals
- Transgender equality

Multidisciplinary Team

- Endocrine management of HRT
- Surgical management
- Gynaecology -management of fertility options
- Nurses/Scientists at fertility unit
- Psychologist
- Psychiatrist
- Lawyers
- Family/friends support

Variable presentations

- Masculine
- Feminine
- Sexual orientation
- May be single – options for future
- May be in a couple – expectations for ‘take home baby’
- Other parties involved – donor eggs/sperm/ surrogacy

Fertility Preservation and Reproductive Options

- Male identifying as female
- Female identifying as male
- Other presentations

Male identifying as Female

- Sperm storage/usage options in the future
- Usually would present prior to gender reassignment surgery
- May have already commenced HRT – what are the effects on testicular function and sperm quality
- Who will use the sperm in the future?

Female identifying as Male

- Oocyte storage/ usage . Requires stimulated ART cycle at the very least.
- ?surrogacy, ?own uterus, ?Female partner
- Partial transition surgery– eg bilateral mastectomy
- May already be on testosterone - ? What effect on oocytes
- May be increased risk of endometrial and ovarian cancer if no TAH/BSO while on Testosterone replacement

Clinical interactions

- Very different from general population
- Interactions are often difficult, challenging, for medical team and therefore for the individuals involved.
- Interacting with a man in a ‘manly way’ while giving FSH and performing vaginal USS tracking of ovarian follicles
- Or – bearded man presenting to theatre for ‘egg collection’ procedure - many confused staff

Uncertainty

- ? Effects of E2 on sperm
- ? Effects of Testosterone on oocyte quality
- How long do we stop hormones prior?
- How ‘normal’ does the hormonal profile need to be before collecting gametes?
- How reliable is AMH in this population that have been treated with Testosterone

My role

- Non-judgmental, welcoming environment
- ‘normalise’ the experience – issues in clinics/ front desk, hospital admin etc
- Try to be as helpful as possible – provide advice regarding options for long term use of gametes.
- Coordinate with and involve multidisciplinary team.

CASE STUDY 1

Presenting History

- HB - 16 year old
- Presents with mother.
- Transgender Male– born with sex characteristics of a female, identifies male exclusively for last 2 years, felt male for as long as he can remember.
- Came to discuss oocyte freezing.

- Menarche 12 years old
- Periods heavy and painful
- 5-7/28 days
- PMH/PSH – nil
- BMI 22
- Appropriate secondary sexual characteristics
- Declined vaginal examination/inspection

- Sees his future in same sex Male relationship
- Not wanting to have stimulation of ovaries in the future to obtain eggs, will not be able to if surgical intervention.
- Has no interest in ever achieving a pregnancy – would therefore require surrogate if proceeding with pregnancy.

Investigations

- Normal androgens, SHBG
- Ovulation confirmed – Prog 51 on D21
- AMH – 10.8
- Karyotype/Fragile X - not ordered
- Normal transabdominal pelvic USS – no anatomical changes, small ovaries bilaterally

- Dr Stathis – Psychiatrist
- Jodie Housman – Psychologist
- Parents and siblings supportive
- Support from Medical and Clinical Directors of City Fertility Centre
- Booked to see Dr Jenny Batch (Endocrinologist) at transgender clinic to start transition

Treatment cycle

- FSH 225 IU from D2
- Antagonist – fixed day 6 start
- Lucrin agonist trigger planned
- Overstimulation discussed
- AMH – not overly helpful in this age group
- Expected good response to drugs
- TA scanning performed

- Slow to stimulate
- Increased to 300 units and added in Luveris
- Trigger day 13
- E2 - 4900
- P4 – 2
- Lucrin trigger and appropriate LH/P4 increase 12 hours later

Oocyte Pick Up

- Transvaginal approach
- General anaesthetic
- Only 10 follicles
- 9 oocytes collected and frozen

Issues

- Age and Consent
- AMH in this age group – 16 lies outside the range for which reference data is available.
- What chance does he have of being able to use these oocytes in the future?

CASE STUDY 2

Presentation – DB & TM

- DB - 26 year old TG – born with sex characteristic consistent with female, identified as male from young age
- Physical 'masculine' job
- Had had 4 years of IM testosterone
- Bilateral mastectomy only
- 'normal androgenisation' – looked male – bearded, chest, arm, leg hair

- Planning gender affirming surgery - lap hysterectomy/BSO in the future, is well at present with IM Testosterone
- Ideally wanting Vaginectomy, Phalloplasty and testicular implants – only done overseas
- Expensive – I have heard up to $120000

- Partner – TM – 24 year old
- Heterosexual female
- Own fertility history and pathology to consider – likely endometriosis on history and examination

- Wanting to use DB's oocytes, donor sperm, and for TM to carry pregnancy.
- Not wanting to try donor sperm with TM in first instance– DB wanting to have genetic input into child
- Would consider IUI or IVF in the future with same donor sperm and TM's oocytes

Management

- Stopped Testosterone – arbitrary 3 months
- Levels dropped from 14.3 to 3 – normal female range
- After 3 weeks – felt – ‘less male’, PMT, hormonal. Emotionally very difficult
- Ovulation was confirmed with Prog of 51 after 3 months

Stimulation

- 150 IU of Puregon, Lucrin trigger
- Dose based on age and USS findings (No AMH)
- 20 follicles on TV USS, 19 oocytes collected
- 15 mature
- 11 fertilised with ICSI
- Fragmented embryos by day 3, arrested at cleavage stage - only single blast frozen

- Couple very disappointed
- ? Testosterone as the cause of poor oocytes/embryos – but reassuring blood levels
- But we use testosterone in our poor responders, nature uses it in PCOS
- ?underlying poor oocyte quality
- Not having another cycle – expense, emotions, nothing definitive to do to improve outcome

CASE STUDY 3

- MS – transgender male (born female sexual characteristics)
- Commenced gender transformation in 2001
- Masculine appearance - bearded
- TAH/BSO in 2007 – no ability to have genetic input

- Does not plan to complete gender affirming surgery
- AD – female, identifies as lesbian
- Never had heterosexual relationship
- Planning known donor sperm IUI with AD with MS as male parent.

CASE STUDY 4

Presentation

- JJ 31
- Born male – identifies as female – only recently
- Wanting to freeze sperm
- No HRT as yet
- Overweight
- Gynaecomastia
- Reduced body hair and beard

Investigations

- Low Testosterone – 7
- Normal LH and FSH
- 46XY
- Small testes
- SA - <1mill/ml,

- Has female partner – 45 year old, heterosexual woman. Older children – not wanting more pregnancies.
- History of malignancy – feels that he is storing sperm in case another partner in the future
- Is this sperm going to be used in the future? Does that matter?

Summary

- No generalisations in this patient population
- Endless possibilities of presentation – both of patient and of partner
- Many different scenarios to make use of gametes in the future.
- Uncertainty regarding ‘best practice’ - both in hormonal and fertility management

- Multidisciplinary approach so very important
- Spending time with individual and those supporting them through the cycle
- Education, information to those interacting with patient

Future

- More information/ recommendations needed regarding timing without hormones prior to IVF/ oocyte freezing and sperm freezing
- Ongoing experience with surrogacy – make for a smoother road for these individuals in the future

Thank you