

Gender Mainstreaming

Part 2: Transgender operations and hormone applications

Sex reassignment surgery is offered to tourists and might create a greater interest in Thais as well.

In claiming that Thailand's culture is well known for favoring 'diverse gender identity,' citing the example of 'ladyboys' and a high quality of skilled professionals and facilities for 'gender affirmation surgery' is offered to tourists visiting main tourist spots (1, 2). Besides the undoubtedly rightful claim that international hospitals and clinics provide quality service for prices more economically than Western countries, the claim is made that Thailand's socially beneficial atmosphere is a suitable place for a lengthy health recovery after a male-to-female 'sex reassignment surgery.' More detailed instructions on what could be expected and what procedure is possible are also available in English in tourist newsletters (3). Not only tourists but also Thai citizens will probably be more interested in this sphere than before. Medical doctors and also public health officials should be aware of what 'transgender' implies for those going through it.

To read the guide for 'sex reassignment surgery,' who are not transgender and gender diverse (TGD) is not for the faint-hearted (4).

Sex Reassignment Surgery (SRS)

The procedures, called 'Sex Reassignment Surgery (SRS),' involve castrating (orchietomy) and cutting the penis off (penectomy). If possible, from the scrotal skin, a 13 to 15-cm vagina could be formed within 4 hours of surgery. Still, for those wanting to have a lubricated vagina with more depth, the sigmoid colon is used with an operation of 6 hours and double the costs. To enlarge the breast (augmentation) and facial as well as voice feminization surgery are less frightening offers. To be fair, the guide mentions many preconditions that must be met and estimates the length of hospitalization and the need for recovery before one can return to daily life. The instructions also mention complications and side effects. In fact, SRS in Thailand is based on experience for a long time.

Three thousand vaginoplasties up to 2012

In 1975, the first SRS operation was conducted in Thailand, and the experienced institute operated more than 3000 vaginoplastics up to 2012. Thai society changed over time from the rejection of transgender persons to a lukewarm acceptance. In the beginning, only a few foreigners were operated on. Then, the rate between the Thai and foreigners under the surgeons' scalpels changed because the overwhelming number now are foreigners (5). In the Thai media, transgender operations still rightly refer to the sex at birth of transgender individuals, and the procedure is called 'reassignment.' The literature in the US refers to 'Gender-Affirming Surgery (GAS)' and emphasizes gender instead of sex.

Estimating the number of GAS in the US

Estimating GAS in the US identified 48,019 individuals who underwent operations between 2016 and 2020. Of these, 52.3% were aged 19 to 30. The most common procedures for 56.6% of this age group were breast and chest operations, while 35.1% had genital reconstruction and 13.9% had facial and cosmetic measures. A peak of GAS was observed in 2019, with 13,011 procedures, followed by a small decline in 2020, with 12,818 events. Overall, GAS increases with age (6).

Regretting the transition

Quite a significant number of US states have banned 'gender-affirming care' for minors. One of the concerns is that the young are especially in danger of regretting the transition (7). After the life-changing operations, regret is probably not restricted to the young. A recent systematic review after GAS included 27 studies with 7,928 transgender-operated individuals from fourteen countries. Only seventy-seven individuals admitted regret after the operations. Of them, 33% were females who preferred to appear as male, while 67% were men favored to be female. Of the majority, 38 had significant regrets, and 28 had minor regrets. With one percent, the overall regret rate was very low (8).

Frequent reasons for regret were difficulties in accepting the new gender role and dissatisfaction with the outcome of the operation, not being accustomed to the new appearance, and psychological problems were mentioned as well.

Among the operations, vaginoplasty was the primary reason for disappointments. A very low number of regrets, 1%, were attributed to mastectomy. Methodological problems in assessing regret were a major drawback of the study because standardized questionnaires were missing, allowing a more valid assessment of regret. The authors considered the overall prevalence of regrets, 1%, an underestimate of the 'real prevalence of true regret.'

In addition, not only were non-standardized questionnaires problematic, but also the lack of controlled studies, incomplete follow-up, and the disregard for the time regret could be felt. Finally, the study results were considered 'unsupported and potentially inaccurate' (9). Yet, the transgender scene seems to be quite content with the low regret rate from the 1.6 million people in the USA who underwent sex surgeries. It is claimed that the operations result in working against depression, anxiety, and suicidal thoughts. Operations are finally the endpoint of a long period of frustration, such as hormone therapy, considering the risk of these procedures and the long time of waiting periods before the operations while exposed to discrimination, harassment, and violence (10).

Hormone replacement therapy

Operations aimed to resemble the desired sexual appearance often follow hormone replacement 'therapy,' the other leading group of tools within the gender mainstream ideology. Examples of introductions to 'feminizing hormone therapy' and, more generally, 'gender-affirming replacement' therapy are found online from international and Thai sources (11, 12). The two primary hormones are testosterone for females, desiring to appear more like males, and the other way around for males, which a wish to change into a female is estrogen. Additional

antiandrogens are in use. Three hormone application methods are commonly available: injections, topical medication such as creams and gels, and oral medication tablets. The pros and cons of applications are mentioned. Oral medication for testosterone and serotonin could affect the liver and cause blood clotting. Injections seem to be the most frequent way of interference, and topical medication, with the main side effect of skin irritation, is the most bland way to alter the sex one was born with.

Danger and side effects

Hints about the dangers and side effects of hormone use in transgender information within the websites are usually mentioned. On the other hand, so-called gender-affirming hormone therapy sees a positive impact on ‘psychological functioning.’ A systematic review ‘consistently found’...that the ‘therapy reduces depressive symptoms and psychological distress.’ It seems that the ‘anger expression, especially among females, transformed to males, increased, but not ‘intensity.’ A straightforward clarification about the change in the quality of life after ‘transforming’ was not possible (13). A systematic review of mental health among transgender people after hormone medication concluded that quality of life increased while depression and anxiety decreased, but no conclusion about suicide was possible (14).

Health, bone, and cardiovascular risk factors

Publications dealing with unwanted side effects usually point out first that ‘gender-affirming treatments such as surgery and hormone therapy is linked to significant improvements in wellbeing (15), before continuing to assess overall health, bone, and cardiovascular risk factors (15, 16).

A systematic review of the effect of three years of transgender hormone applications for bone marker levels and bone turnover markers faced a wide variability between studies conducted in European countries. Finally, it concluded that neither for women nor male transgender ‘patients’ calcium, phosphate, alkaline phosphatase, as well as osteocalcin levels, were altered and ‘slightly increased the bone formation in transwomen and transman. However, the bone mineral density seemed to be ‘reduced for transwomen patients’(17).

Results of the French ‘pharmacovigilance’ database

A more detailed picture of the major side effects of hormone application in ‘transgender persons’ has evolved with a recent publication based on the French pharmacovigilance database (FPVD). By French law, every health professional has to report any adverse drug reaction (ADR) to regional centers of the database as ‘serious’ or not, or ‘expected’ or not. Despite professionals also, patients can report. Based on all gender-affirming hormonal therapy (HT) cases before the 27th of May 2020, twenty-eight reports of ADRs were recognized, from six cases as transgender men (born as females), and the remaining majority stemmed from transgender women (born as male). The age of those born as women ranged from 21 to 40 years, and from those born as men from 22 to 68 years. As hormones testosterone enanthate and antiandrogens, mainly cyproterone acetate and estrogen, were applied, primarily associated with progestin or cyproterone (18).

Diseases linked to hormone application for transgender men

Of the six women at birth under hormone application as transgender men, three suffered from pulmonary embolism. Two cases, aged 31 and 27 years, experienced the embolism 15 days and 7 months after the beginning of the hormone application. A 40 year-old-case came over with pulmonary embolism after using the hormones for 15 years. A 21-year-old case suffered from deep vein thrombosis after 8 months of hormone usage. A 36-year-old case had an ischemic stroke after 5 to 6 years of getting hormones. It occurs that cardiovascular ADRs seem to hit women turned to be transgender men, particularly in the younger adult age range, below 40 years (Tabl.1 (18)).

Disease pattern linked to transgender women

Among those born as men, two suffered because of self-induced drug intoxication. One case developed after one month of hormone psychiatric disorders, and the other case got hepatitis 36 hours after one dose of 30 mg cyproterone acetate and estradiol hemihydrate. This case used other drugs as well for a suicidal attempt. Two other cases applied feminizing hormones as self-medication. One man used ethynyl estradiol (bought on the internet) for 215 days and stopped because of the swelling of the breasts. The second case, under cyproterone acetate and estrogens for 32 months, experienced several adverse symptoms, i.e., phlebitis, depression, gynecomastia, and pruritus. Obviously, all four cases were under problematic mental conditions, not mentioned in the report.

Six cases acquired various cardiovascular diseases, from pulmonary embolism to acute coronary syndrome, malignant hypertension, and ischemic stroke. The rest of the 8 cases of feminizing hormone schemes grew a meningioma brain tumor (Tabl. 2 (18)).

Meningioma

Meningioma is one of the frequent primary brain tumors stemming from the middle layer of the meninges, the arachnoid. The three layers of the meninges cover the brain from the skull. The benign tumor could remain unrecognized, staying silent for many years. Even if the tumor doesn't spread metastasis, it might suppress the brain tissue at critical locations and, therefore, could be damaging at certain brain regions, causing all sorts of symptoms, including hydrocephalus, damaging the optic nerve, and leading to dysfunction of the pituitary gland (19).

Conclusion

The French investigation didn't document the danger of the transgender topic on a population basis. Yet, the results confirm adverse drug reactions, cardiovascular diseases, and pulmonary embolism and reveal the not-so-well-known threat of growing a brain tumor. As far as cardiovascular events are concerned, the adverse reactions of the drug application especially could be harmful to younger adult females trying to change their appearance into males. As mentioned previously, health research concentrates more on men than on women. There is the danger that regret sets in after mastectomy when, finally, there is the wish for a child and family. Complaints are increasing that males, as transgender women, invade spaces reserved for females

and prisons for women. The Thai Gay Lobby is less than happy with the LGBTQ movement and wants to concentrate on discrimination, employment, and gay bashing (20).

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