

## **P26. Agreement of two medical approaches with the expert consensus in identified the causes of primary amenorrhea in Songklanagarind Hospital**

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### **Context:**

There are two scheme-based approaches published in the gynecological standard textbooks to approach primary amenorrhea. However, they never have been evaluated the accuracy of their diagnosis.

### **Objective:**

To assess the agreement of each medical approaches compared with the expert consensus in identifying the causes of primary amenorrhea.

**Methods:** A retrospective study was conducted in Songklanagarind Hospital, the tertiary referral center in the South of Thailand.

**Patients:** The medical records of primary amenorrhea between 1 January 2002 and 31 May 2017 were reviewed.

### **Interventions:**

The approach 'A' (Textbook of Clinical Endocrinology and Infertility Gynecology) was initiated with evaluating the genital anatomy followed by assessment of the ovarian, pituitary and hypothalamic hormone. The approach 'B' (Textbook of Berek and Novak's Gynecology) was initiated with evaluating the breast development. Then the genital organs were assessed followed by assessment of hormonal profiles if indicated. Both 'A' and 'B' were compared with the expert consensus by an agreement among the panel of three reproductive endocrinologists.

### **Main Outcome Measures:**

The causes of primary amenorrhea were classified as five categories including disorders of the genital outflow tract and uterus, disorders of the ovary or gonad or hypergonadotrophypogonadism, disorders of the anterior pituitary and hypothalamus or hypogonadotrophypogonadism, enzymatic deficiency, and other disorders included anovulation, hyperprolactinemia, and thyroid disease.

### **Results:**

Overall 225 patients were Disorders of the genital outflow tract and the uterus (51.6%), ovary (hypergonadotrophypogonadism)(30.7%) and pituitary gland/ hypothalamus (hypogonadotrophypogonadism)(11.1%), respectively. The kappa of the agreement with medical approach 'A' and 'B' are perfect when compared with the expert consensus (0.86 and 0.84, respectively). The most disagreement in both approaches are Disorders of the genital outflow tract and the uterus about 18 cases (10.2% in 'A' and 4.2% in 'B') (The experts diagnose estrogen insufficiency).

### **Conclusions:**

The agreement of both medical approach 'A' and 'B' compared with the expert consensus in this study was strong. Beware for using ultrasonography diagnose the disorder of outflow tract obstruction and uterus because of hypoplasia of the uterus in estrogen deficiency.

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