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Pregnancy rate among women who pursue overseas employment

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Background : *Urine pregnancy test is an easily available diagnostic procedure in the present day. It is a requirement of the screening program for Thai women seeking overseas employment. Few recent studies, however, have estimated population pregnancy rate using objective, laboratory-based criteria. Here, the authors reviewed a study at a tertiary hospital on laboratory-measured pregnancy rate among Thai women who are pursuing overseas employment.*

Method : *The data from medical records of the female patients who got diagnostic urine pregnancy test at the Department of Laboratory Medicine, King Chulalongkorn Memorial Hospital, Bangkok, Thailand from April 2004 to March 2005 were reviewed.*

Results : *1,548 medical records were reviewed in this study. From total medical records, there were 41 positive cases from overall 1,548 cases. The diagnostic test results were positive in 41 cases (2.65 %) and negative in 1,507 cases (97.35 %).*

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Discussion : *Urine pregnancy screening among these workers can decrease their rate of rejection by the countries in which overseas employment is sought. The data from this study is useful basic information for occupational health practitioners. This is the first report on this topic in Thailand.*

Key words : *Urine pregnancy test, Worker, Women, Overseas, Employment.*

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ประภาวดี เอกวงศ, วิโรจน ไววานิชกิจ. อัตราการตั้งครุภคของแรงงานไทยที่ตองการเดินทางไปทำงานตางประเทศ. จุฬาลงกรณเวชสาร 2548 ต.ค; 49(10): 573 - 8

- ความเติม** : การตรวจปัสสาวะทดสอบการตั้งครุภค จัดเป็นการตรวจวินิจฉัยที่ใช้อย่างกวางขวางในปัจจุบัน การตรวจดังกลาวยังเป็นข้อกำหนดหนึ่งสำหรับแรงงานที่จะเดินทางไปทำงานยังตางประเทศอิกด้วย ปัจจุบันมีการศึกษาเกี่ยวกับอัตรา การตั้งครุภคที่ตรวจจากการตรวจทางหองปฏิบัติการอยู่นอย ผู้นพนธไดทำการ ศึกษาอัตราการตั้งครุภคสำหรับแรงงานที่จะเดินทางไปทำงานยังตางประเทศ จากโรงพยาบาลระดับตติยภุมิแหงหนึ่ง
- วิธีการ** : ไดทำการทบทวนผลการตรวจปัสสาวะ ทดสอบการตั้งครุภคทางหองปฏิบัติการ ของกลุมแรงงานไทยที่จะเดินทางไปทำงานยังตางประเทศ จากฝาย เวชศาสตรชั้นสูตร โรงพยาบาลจุฬาลงกรณ ระหวางเดือนเมษายน 2547 ถึง มีนาคม 2548
- ผลการศึกษา** : ไดทำการทบทวนรายงานการตรวจจํานวน 1,548 ราย พบผลบวก 41 ราย (2.65 %) และผลลบ 1,507 ราย (97.35 %)
- อภิปราย** : การตรวจปัสสาวะทดสอบการตั้งครุภคทางหองปฏิบัติการของกลุมแรงงานไทย ที่จะเดินทางไปทำงานยังตางประเทศ เป็นการตรวจที่มีประโยชน์ช่วยลดอัตรา การปฏิเสธไมจํางานจากตางประเทศ ข้อมูลจากการศึกษาครั้งนี้สามารถใช เป็นข้อมูลพื้นฐานในการศึกษาดานสุขภาพ และการจํางานของกลุมแรงงาน ไทยที่จะเดินทางไปทำงานยังตางประเทศ และเป็นการรายงานครั้งแรกใน ประเทศไทย
- คําสําคัญ** : การตรวจปัสสาวะทดสอบการตั้งครุภค, แรงงาน

Urine pregnancy test is an easily available diagnostic procedure in the present day. The test is based on basic of immunological principles.⁽¹⁻³⁾ So far, there are many urine pregnancy diagnostic test kits were available in the market.⁽⁴⁾ Because of its simplicity and inexpensive cost per test, it is widely used nowadays. Urine pregnancy test is a requirement of the screening program for Thai women seeking overseas employment.

Few recent studies have, however, estimated pregnancy rates among the population using objective, laboratory-based criteria.⁽⁵⁾ A study on the demographic data of the laboratory screening, especially the marital status can provide good predictive factor of pregnancy.⁽⁶⁾ Here, the authors reviewed a study on laboratory-measured pregnancy rates among workers that pursue overseas employment in a tertiary hospital in Thailand. Not only that this study is a good source of medical information it also

a good reference for social demography.

Materials and Methods

The data from medical records of the women who were pursuing overseas employment and got diagnostic urine pregnancy test at the Division of Laboratory Medicine, King Chulalongkorn Memorial Hospital, Bangkok, Thailand from April 2004 to March 2005 were reviewed. The laboratory setting is the largest laboratory of the Thai Red Cross Society accredited by ISO 15189 Standard. The urine pregnancy test mentioned in this study is a rapid, one-step membrane test for detection of HCG in the urine. The accuracy of the test is about 99 %. The result of each test noted in medical records was reviewed and collected. Records that had no complete data were excluded (Table 1). Descriptive statistic was carried out on the data where appropriate.

Table 1. Screening for pregnancy programme of Thai women seeking overseas employment by age group.

Age	Urine pregnancy test	
	Negative	Positive
>16	1	-
16-20	155	3
21-25	340	14
26-30	410	13
31-35	310	9
36-40	176	2
41-45	83	-
46-50	23	-
51-55	4	-
56-60	4	-
<60	1	-

Table 2. Monthly report of urine pregnancy test for pregnancy rate among who pursue overseas.

Month	Urine pregnancy test	
	Negative	Positive
April 04	123	1
May 04	145	5
June 04	165	2
July 04	154	5
August 04	189	6
September 04	93	2
October 04	119	5
November 04	136	3
December 04	81	3
January 05	84	2
February 05	90	2
March 05	128	5

Results

1,548 medical records were reviewed in this study. From the total medical records, there were 41 positive cases from overall 1,548 cases. The diagnostic test results were positive in 41 cases (2.65 %) and negative in 1,507 cases (97.35 %) (Table 2).

Discussion

Urine pregnancy test in medical laboratory practice is a frequently used test one due to its convenient and effectiveness. The common indication for laboratory request was missed menstruation. However, it is presently included as screening test for the workers that pursue overseas employment.

In this study, most of the results of the urine pregnancy tests were negative. This result, comparing to a recent study by Wiwanitkit in a general females⁽⁶⁾

is lower. According to the study of Wiwanitkit, the very high laboratory-measured pregnancy rate was reported. However, in this study, the setting is an official hospital with more evidence-based patients record system.

Screening for pregnancy among these workers by urine testing can decrease their rate of rejection by the countries in which overseas employment is sought. This study provides data base for medical science and social demography. Further study - as a multi-center study is recommended.

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