

ANALYSIS OF PREVALENCE AND RISK FACTORS OF PELVIC ORGAN PROLAPSE IN WOMEN IN THE NEPAL

Hypothesis / aims of study

To evaluate the prevalence and associated factors regarding the occurrence of pelvic organ prolapse and lower urinary tract symptoms in women attending the health care service in discrete rural area of Nepal.

Study design, materials and methods

A questionnaire was design and translated into Nepalese version. The questionnaire contain information regarding general background, obstetric and gynaecological history, time interval from delivery to work, characteristic and duration of daily work, eating habit, smoking status, urinary symptoms investigation using the Urogenital Distress Inventory Short form(UDI-6). In cooperation with a local Non-government organization (NGO), about 10 local health workers were trained for conducting the interview and tested for the understanding of the questionnaire contents. Women who attended the voluntary health care service at three rural areas (Mayigdi, Sindhupachowk, kulung) were interviewed and help to answer the questionnaire by the trained workers. Pelvic examinations and assessment of the severity of pelvic organ prolapse were performed by the same gynaecologist (Y-S Lien) using the POP-Q quantification test. .

Results

From March 2010 to May 2010, 174 Nepal women were successfully interviewed and examined. Below are the basic characteristics of the study subjects.

Parameters	Number of cases	
	N	(%)
Age (years), mean \pm SD	40.4 \pm 14.9	
Parity, median (range)	3 (0-8)	
BMI, mean \pm SD	22.7 \pm 3.5	
Age of first delivery	20.4(15-30)	
Menopause	55	31.6%
Smoking/tobacco	47	27%
Working during pregnancy	155	89.1%
Position of delivery		
Lying down	83	47.7%
Standing	13	7.5%
Squatting	61	35.1%
Time interval from deliver to work		
Within 1 week	36	20.7%
2 to 4 weeks	55	31.6%
> 4 weeks	68	39.1%
Heavy lifting (farming+ housing)	166	95.4%
Squatting position (hours a day, mean)	8.5	
Feel or seeing a mass at vagina	81	46.8%

53.4% (n=93) women reported urinary frequency, 56.3% (n=98) have urine leakage during physical activity, 46.6% (n=81) reported urgency incontinence, 39.1% (n=68) women reported difficulty in emptying bladder and 75.3% (n=131) women complaint of pain or discomfort in the lower abdominal or genital area

Pelvic examination revealed that 51% (n=93) women have \geq stage II anterior vaginal wall prolapse, 36.2% (n=63) women have \geq stage II posterior vaginal wall prolapse and 20.6% (n=37) women have \geq stage II uterine prolapse. When analysed according to age cohort, 65.5% (n=61) women with \geq stage II anterior vaginal wall prolapse are below 50 years old, and 15% (n=14) of these women are below 30 years old. Among women with \geq stage II posterior vaginal wall prolapse, 66.6% (n=42) are below 50 years old, and 17.4% (n=11) are below 30 years old. Among women with \geq stage II uterine prolapse, 48.6% (n=18) are below 50 years old, and 10.8% (n=4) are below 30 years old.

Below are the comparisons of risk factors among women with POP according to different severity of pelvic organ prolapse by univariate analysis.

Variables	Cystocele \geq stage II (n=93)	Cystocele <stage II (n=80)	Rectocele \geq stage II (n=63)	Rectocele <stage II (n=110)	Uterine prolapse \geq stage II (n=37)	Uterine prolapse <stage II (n=133)
Parity >2	67(72%)*	37(46.3%)*	49(77.7%)*	55(50%)*	28(75.6%)	73(54.8%)
Age of 1st delivery; <20y/o	39(42%)*	28(35%)*	31(49.2%)*	36(32.7%)*	17(45.9%)	50(37.6%)
Menopause	38(40.8%)*	17(21.2%)*	23(36.5%)	32(29%)	19(51.3%)*	33(24.8%)*
Position during delivery; squatting & standing	76(58%)*	21(26.2%)*	30(47.6%)	45(40.9%)	23(62%)*	52(39%)*
Interval from delivery to work; \leq 4 weeks	60(64.5%)*	30(37.5%)*	40(63.5%)*	50(45.4%)*	22(59.4%)	66(49.6%)

*P < 0.05

When analysed with multivariate logistic regression, the position during delivery (squatting and standing position) was the independent risk factor for the occurrence of cystocele in these women.

Interpretation of results

Cystocele was the most common form of prolapse in these women, 51% have greater than stage I prolapse and most of these affected women are in their reproductive age. The prevalence of lower urinary tract symptoms and discomfort/pain over genital area are high in these patients. The limitation of this study is the small case number of patients above 60 years old due to the poor access of these women to the health care service.

Concluding message

Lower urinary tract dysfunction and pelvic organ prolapse were common among rural women in Nepal. This should draw great attention to the women health care providers to deliver appropriate strategy and education for the women in this country.

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Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	IRB of Chung Shan medical university hospital
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes