A study of reproductive morbidity of women in the Eastern Terai Region of Nepal

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Abstract

Aim: This study aims to fill the gap of information of reproductive health (RH) of women living in rural eastern Terai by providing baseline data on reproductive morbidity (RM) leading to pelvic organ prolapse (POP), reproductive tract infections (RTIs), menstrual problems and subfertility.

Methods: This is a descriptive analysis of women who attended mobile RH camps in eastern Terai of Nepal organized at different villages falling in three districts namely Rautahat, Mahottari and Saptari during December 2005 and 2006.

The diagnoses were made mostly on clinical evaluation and treatment provided. The leading reproductive morbidity of POP was dealt in detail and surgeries were performed in the district headquarters.

The data were recorded and analysed manually. Analysis was done by standard statistical methods and a two-tailed P value less than 0.05 was considered to indicate a significant difference.

Results: Total number of women treated in the camps was 7750. Majority of the women in this study were found to be suffering from STI (30.1%), followed by POP (20.1%), menstrual disorders (16.7%) and subfertility (9.3%). Among POP patients majority received ring pessary insertion (43.8%) followed by counseling plus pelvic floor exercise (32.9%) and surgical correction (23.3%). Third-degree POP (38.6%) was commonest among all POP cases. Majority (60%) developed POP after first and second child birth.

Conclusion: The major reproductive morbidity in this study was STI, POP (most of the women having third-degree uterovaginal prolapse), menstrual disorders and subfertility. Surgical treatment at the camps could only be provided to small number, suggesting expansion of health services in rural Nepal by reproductive health barriers like poverty, education.

Key words: menstrual disorders, pelvic organ prolapse, reproductive morbidity, reproductive tract infections, sub-fertility.
the third world women as indicated by available indicator of maternal mortality is very alarming.

RH is a major public health issue in Nepal also. The high maternal mortality in Nepal occurs during pregnancy, childbirth, post-partum period and during or following unsafe abortion. Sexually transmitted infection (STI), urinary tract infection (UTI) and HIV/AIDS are other diseases which are responsible to deteriorate women’s health. On top of that, high prevalence of genital prolapse in rural Nepalese women is one of the biggest reproductive problems. Other common health problems in Nepalese women include menstrual and fertility problems, anemia and cancers in cervix, breast and ovaries.

There has been substantial improvement its RH status of women in the recent years with life expectancy at birth rising from 41 years in 1971 to 63.3 years in 2006. With a population of 25.8 million, maternal mortality ratio 281 per 100,000 live births, total fertility rate reduced to 3.1 and deliveries assisted by trained health personnel is only 19 percent (of live births) and 81 percent of births occur at home without the benefit of qualified birth attendants or doctors. The infant mortality rate is 48 per 1,000 live births. However there is relative lack of information or paucity of evidence based dimensions on reproductive morbidity (RM) which this aims to present.

Methods

Most studies of maternal morbidity from developing countries are hospital-based rather than community-based, and most are retrospective rather than prospective. This study is a health camp based study involving women who attended mobile reproductive health camps in the villages.

The study was cross-sectional in design. It was conducted in Rautahat, Mahottari and Saptari districts located in the Terai region of Nepal. The study was done in women who attended four-week long health camps during December 2005 and 2006. The RH mobile camps were organized in different villages and surgical camps were conducted in the district headquarters.

All the women (n = 7750) who came to seek healthcare at the RH camps were studied. The diagnoses were made mostly on clinical evaluation. Those women who gave history of complaints relating to reproductive tract were subjected to examination including bimanual and per speculum examination. The data were recorded and analyzed manually. Analysis was done by standard statistical methods.

The leading reproductive morbidity of pelvic organ prolapse (POP) was dealt with in some details in this study. Using the introitus as a reference point, a grade for genital prolapse was assigned. First degree equals prolapse present and extended to the introitus; second degree is when the prolapse exceeded the introitus at straining, and third degree is complete prolapse outside the introitus.

Analysis was done by standard statistical methods and a two tailed P value less than 0.05 was considered to indicate a significant difference.

Results

Of 7750 women examined in the three districts mentioned above during the study period, 5893 (76.2%) had four major types of morbidity related to reproductive tract (Table 1).

Table 1: Distribution of women according to common RH morbidity

<table>
<thead>
<tr>
<th>Morbidity</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>STI</td>
<td>2333</td>
<td>30.1</td>
</tr>
<tr>
<td>POP</td>
<td>1556</td>
<td>20.1</td>
</tr>
<tr>
<td>Menstrual Disorders</td>
<td>1295</td>
<td>16.7</td>
</tr>
<tr>
<td>Sub-fertility</td>
<td>719</td>
<td>9.3</td>
</tr>
<tr>
<td>Others</td>
<td>1857</td>
<td>23.8</td>
</tr>
<tr>
<td>Total</td>
<td>7750</td>
<td>100</td>
</tr>
</tbody>
</table>

STI formed the major bulk of morbidity (30.1%) in the camps in Terai. They were treated as per the national guideline on STI but the husbands were not available for partner tracings. STI included vaginitis, cervicitis, pelvic inflammatory disease, etc but excluded HIV/AIDS. The diagnoses were made on clinical evaluation and basic laboratory investigations.

Menstrual disorders were found in 16.7% of the women and it included irregular cycles, dysmenorrhea, scanty bleeding and amenorrhea, heavy or prolonged bleeding, etc. Sub-fertility was prevalent in 9.3% women. Primary sub-fertility was more common than the secondary sub-fertility (68% versus 32%). Other category included UTI, ANC, PNC, menopausal syndrome, gender based violence, fibroid uterus, acid peptic diseases, worm infestations, scabies, COPD, arthritis, polyneuropathies, etc.

There were no differences between 2005 and 2006 groups with regards to STI and menstrual disorder. However there was significant difference in POP, sub-
fertility and other problems in the two years period where a large number of patients turned up with other medical illnesses too (Table 2).

POP formed the second major bulk of morbidity (20.1%). Women suffered mostly from third degree uterovaginal prolapse and majority of them from procidentia. They were. III\textsuperscript{rd} (38.6%), II\textsuperscript{nd} (30%) and I\textsuperscript{st} (32%).

Treatment of POP offered are given in Table 3 and 23.3% of women with POP could receive surgical and others were fitted with ring pessary for surgery in future camps.

Table 3. Distribution of POP by treatment offered

<table>
<thead>
<tr>
<th>Treatment options</th>
<th>Number of women</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ring pessary</td>
<td>681</td>
<td>43.8</td>
</tr>
<tr>
<td>Exercise</td>
<td>512</td>
<td>32.9</td>
</tr>
<tr>
<td>Surgery</td>
<td>363</td>
<td>23.3</td>
</tr>
<tr>
<td>Total</td>
<td>1556</td>
<td>100</td>
</tr>
</tbody>
</table>

Age of women with POP ranged from 21-92 years and in those who received surgery [n=363]; 37% were fell in the age group of 40-49 years, 6% in (20-29), 29.2% in (30-39), >50 (28.10%).

Parity is shown of women with POP ranged from para 1 to para 9 in this study. Maximum numbers of women with POP (65%) were multipara (Fig 1).

Duration of suffering with POP ranged from 3 months to 51 years and they suffered 4 years (23.7%), 5-9 years (27%), 10-14 years (22%), 15-19years (16%) and more than 20 years (11.30%).

Some unusual cases seen (Fig 2-7) are self explanatory as illustrated: Cervical fibroid (Fig 2), concomitant rectal prolapse (Fig 3), vaginal carcinoma (Fig 3), bladder stone (Fig 4), self inserted glass bangle (Fig 5) and neglected ring pessary inserted 45 years back.

Discussion

Generally women with symptoms of reproductive morbidity do not seek treatment due to existing taboos and inhibitions regarding sexual and reproductive health. They often hesitate to discuss about their reproductive problems especially, due to shame and embarrassment\textsuperscript{4}.

However, large number of patients with different reproductive morbidity came to the rural health camps in Terai seeking medical help. This showed the change in the scenario; women came to seek help if services were provided at their doorstep. Educating and empowering women to overcome the culture of silence surrounding reproductive organ disorders should be a priority in countries like Nepal.

According to WHO estimates, reproductive ill health accounts for 36 percent of the total disease burden in women as compared to 12.5 percent for males \textsuperscript{5}. The report further states that osteoporosis, genital prolapse and other gynecological complications contribute significantly to reproductive morbidity.
Fig 2. Huge cervical fibroid hanging along with the prolapsed uterus

Fig 3. POP with concomitant rectal prolapse in a woman of 92 years old

Fig 4. Malignancy in a long-standing prolapse

Fig 5. Bladder stone in a woman with POP after reducing the prolapse

Fig 6. Real glass bangle used as pessary, removed in a health camp

Fig 7. Forgotten ring pessary retrieved after 45 years.
A study in rural India reports a very high level of reproductive morbidity. The study shows that more than half of the women are suffering from at least one or more RTI/STDs. RTI was the commonest RH morbidity in the present study too.

In a study in rural areas of the Gambia, seventy percent of the women had at least one reproductive organ disorder; most common were reproductive tract infections (47%), childbirth-related damage to pelvic structures (46%), menstrual dysfunction (34%), and masses (16%).

In a clinic based reproductive health morbidity study conducted in far western districts of Nepal, 25.1% represents pelvic organ prolapse 20.1% of RTI, 17.1% of infertility and 12.3% of menstrual disorders.

In a camp based study in western Nepal, the prevalence of POP was 18% followed by RTI (14%), sub-fertility (14%) and menstrual disorders (7%).

In the present study, four major reproductive problems in the Terai were STI (30%), POP (20%), menstrual disorders (17%) and sub-fertility (9%). Four major morbidity were the same in both the studies.

Menstrual disorders in the form of irregular cycles, dysmenorrhea, heavy or prolonged bleeding, amenorrhea, etc constitute an important unaddressed area of reproductive health service needs in developing countries for which relatively simple and inexpensive therapies are often available. The prevalence of menstrual disorders in the present study was 17%.

Violence against women is a deep rooted problem in Nepal. The dowry system in Terai and some other parts of Nepal humiliates and tortures the females physically and mentally. In this study, gender based violence was very high with 72% of the screened women identified as having GBV. Family/ spousal conflict, genital prolapse, son preference, sub-fertility, alcohol abuse, unwanted sexual relationship, polygamous marriage, etc. were the causes of gender based violence in Terai.

The major types of violence prevalent in the Terai were domestic violence, marital rape and sexual violence.

Pelvic organ prolapse is a very common condition, particularly among older women. Prolapse may be defined as the falling or slipping out of place of a part or viscus. POP is the abnormal descent or herniation of the pelvic organs from their normal attachment sites or their normal position in the pelvis (into the vagina), often accompanied by urinary, bowel, sexual, or local symptoms.
Conclusion

The major reproductive morbidity in the Terai were STI, POP, menstrual disorders and sub-fertility. Although there was overwhelming number of women who needed surgical correction of POP only a fourth could avail the service due to the lack of resources thus denoting a necessity of more supervised delivery than correction of prolapse in the surgical camps.

Acknowledgments

Would love to thank Dr. Bharat Pradhan and Dr. Basanta Maharjan of Kathmandu Model Hospital for their assistance during various phases and also to Dr. Sanjaya Dhakal in preparation of this paper and lastly to UNFPA Country Office, Nepal for funding this project.

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