Menstrual dysfunction and hysterectomy rates in women up to 10 years post-tubal ligation in Counties Manukau District Heath Board

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Tubal ligation is a commonly sought after method of contraception in both developing and developed countries. It is a permanent, low-cost and effective method and suitable for those who have completed their families.

Over the years, it is observed that women present with an increased incidence of menstrual disturbance post-tubal ligation.1 This is commonly known as post-tubal ligation syndrome (PTLS) which comprises of the physiologic and clinic changes taking place after tubal ligation, reported by women as dysmenorrhoea, pre-menstrual distress, prolonged and heavier periods.2–4

This study aims to evaluate the prevalence of menstrual dysfunction and hysterectomy rates up to 10 years after tubal ligation in women in Counties Manukau District Health Board. 213 women who underwent tubal ligation in year 2004 were followed up over 10 years in a retrospective observational study looking at the prevalence of menstrual dysfunction in these women after tubal ligation. Their clinical records were evaluated for subsequent presentation with menstrual disturbance, including visits to the emergency department or gynaecology clinic. Comparison is made to the menstrual symptoms documented prior to tubal ligation and after.

In the 213 women included in this study, 25 women (11.7%) represented with menstrual problems between 2005 and 2014. Of these women, 17 women presented to the gynaecology clinic with heavy menstrual bleeding, two with peri-menopausal bleeding, one with irregular periods, three with dysmenorrhoea and two with symptomatic anaemia requiring blood transfusion.

In regards to treatment, 14 of these women received medical management, four received Mirena insertions, one underwent transcervical resection of fibroid and endometrial ablation, one underwent bilateral salpingectomy and removal of filshie clips, and six underwent hysterectomy.

The patient data was gathered from clinical notes and concerto. The limitation in this study is that there was incomplete documentation on these women’s menstrual symptoms prior to them having a tubal ligation, which limits comparison of their menstrual periods before and after having a tubal ligation. Moreover, their subsequent presentations with menstrual dysfunction may not have been recorded if they only presented to their general practitioner for treatment instead of the gynaecology clinic or emergency department. Some of the women may be also lost to follow-up if they moved to a different city.

There are some factors which may have affected these women’s menstrual symptoms independent of having a tubal ligation. The cessation of use of hormonal contraception post-tubal ligation may have contributed to the increased numbers of women presenting with menstrual disturbance. Other factors like increasing age, obesity, parity, interval since sterilisation and bleeding disorders may also have effect on menstrual disturbance.5

The Collaborative Review of Sterilisation (CREST), a large multi-centre prospective study reports that their study participants experienced higher levels of menstrual pain, heavy menstrual flow and irregular periods 5 years after tubal ligation.5 On the contrary, several other studies have showed no difference in the prevalence of menstrual disturbance and hysterectomy rates between women who have and have not had a tubal ligation.3
To date, there is no proven causal link between women who underwent tubal ligation and the risk of subsequent menstrual disturbances. However, it is observed that menstrual irregularities, menstrual pain and prolonged periods increase with advancing age.\(^1,3\)

In Counties Manukau, the women population have a higher incidence of obesity, high parity, recurrent unplanned pregnancies, and maternity morbidity and mortality rates compared nationally. Early discussion about contraception and offering tubal ligation as a contraceptive measure are important but should be undertaken with sensitivity and care. It is noted among 250 women included in our study, 27 women had a tubal ligation below the age of 30, which is a significant proportion.

The Levonorgestrel Intrauterine Delivery System (Mirena IUS) is reversible, long-acting and provides contraception up to 5 years. The additional benefit of the IUS is that it is used as a treatment for heavy menstrual periods with iron deficiency anaemia and is subsidised in New Zealand for this purpose.\(^6\) It can be offered as a suitable contraceptive method for women who seek contraception and experience dysfunctional menstrual bleeding.

In conclusion, menstrual dysfunction is more prevalent with increasing age. Sterilisation at a younger age may have more effect on menstrual disturbances than older age. In younger women, the Mirena Intrauterine system (IUS) should be considered in women prior to offering a tubal ligation.

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References