

# INCIDENCE OF UNINTENDED PREGNANCY AFTER LAPAROSCOPIC TUBAL STERILIZATION AT DR. SARDJITO HOSPITAL

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## ABSTRAK

**Latar Belakang:** Ligasi tuba laparoskopik adalah salah satu prosedur sterilisasi yang biasa dikerjakan dan memiliki beberapa keuntungan seperti tingginya angka keberhasilan dan segera kembali ke aktivitas normal. Di Indonesia, insidensi kehamilan yang tidak diinginkan dalam suatu penelitian sebesar 0.15%. angka ini sebanding dengan angka kehamilan pada wanita dengan metode kontrasepsi lain.

**Tujuan:** untuk mendapatkan insidensi dari kehamilan yang tak diinginkan pada wanita yang dilakukan sterilisasi tuba secara laparoskopi di RS. Dr. Sardjito.

**Metode:** dilakukan penelitian deskriptif observasional dengan rancangan potong lintang retrospektif. Subyek penelitian adalah seluruh wanita yang menjalani sterilisasi tuba secara laparoskopi di RS. Dr. Sardjito pada Januari 2009 sampai April 2015. Data diambil dari rekam medis. Laporan kehamilan tercatat dalam 2 tahun setelah dilakukan tindakan.

**Hasil dan pembahasan:** lima puluh lima wanita memenuhi kriteria inklusi sebagai subyek penelitian. Terdapat 3 kasus kegagalan berupa kehamilan (54,45%), sehingga angka keberhasilan dari prosedur ini sebesar 94,55%. Semua kehamilan yang dilaporkan terjadi dalam waktu dua tahun setelah dilakukan prosedur. Tidak terdapat komplikasi mayor dari prosedur ini, tetapi terjadi perdarahan minor (<50cc) yang terjadi pada beberapa kasus.

**Kesimpulan:** insidensi kehamilan pada wanita yang menjalani sterilisasi tuba secara laparoskopi di RS. Dr. Sardjito lebih tinggi dari rerata insiden yang dilaporkan oleh penelitian lain.

**Kata kunci:** sterilisasi wanita, sterilisasi tuba laparoskopik, kehamilan tak diinginkan

## ABSTRACT

**Background:** Laparoscopic tubal ligation is one of the most commonly performed sterilization procedures and has many advantages such as high success rate and early return to normal activity. In Indonesia, the incidence of unintended pregnancy in a study was 0,15 %. This rate is comparable with pregnancy rates for women using another contraceptive method.

**Objective:** To assess the incidence of unintended pregnancy on women who underwent laparoscopic tubal sterilization at Dr. Sardjito Hospital.

**Method:** A descriptive observational study with retrospective cross-sectional design was conducted. The data were acquired from medical record from January 2009 to April 2015. Reports of unintended pregnancy within two years after procedure were recorded.

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**Result and Discussion:** 55 women met the inclusion criterion and none were excluded. Method failures resulting on pregnancy occurred in 3 cases (5.45 %), so the success rate of the procedure was 94.55 %. All of the reported pregnancies happened within two years after the procedures. There was no major complication occurred in the procedure, but minor bleeding (<50 cc) did occur in some cases.

**Conclusion:** The incidence of unintended pregnancy on women who underwent laparoscopic tubal sterilization at Dr. Sardjito Hospital was higher than the average incidence reported on another studies.

**Keyword:** female sterilization, laparoscopic tubal sterilization, unintended pregnancy.

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## INTRODUCTION

Tubal sterilization accounts for 28% of contraceptive methods used by women of reproductive age in the United States, and up to 40% of contraceptive methods used throughout the world.<sup>1</sup> The ideal method of sterilization would be one which is highly effective, economical, able to be performed on an outpatient basis, allowing rapid resumption of normal activity, and producing a minimal or invisible scar. Laparoscopic tubal ligation is one of the most commonly performed sterilization procedures and has many advantages such as high success rate and early return to normal activity. It is generally more preferred than minilaparotomy in developed countries because this approach is believed to be safe and effective. In addition, most believe that the laparoscopy scar is aesthetically more acceptable and the period of recovery is more rapid.<sup>1,2</sup>

Conception occurring after sterilisation is termed failed sterilisation, and can occur several years after the procedure; one case was described after an interval of 23 years. Sterilisation failure varies according to the woman's characteristics, operator experience, sterilisation technique and method of sterilisation chosen.<sup>3</sup> The failure rate of this method is also quite low, with numerous study reported that the incidence of unintended pregnancy after 1 year is below 1 %. In Indonesia, the incidence of unintended

pregnancy in a study was 0,15 %. This rate is comparable with pregnancy rates for women using another contraceptive method. However, increasing evidence found that laparoscopic tubal sterilisation seems to be the most effective contraception method over time.<sup>1,4</sup> At Dr. Sardjito Hospital, Yogyakarta, laparoscopic tubal sterilization is performed as part of training program for obstetric and gynecologic residents since 2009. The study was conducted to assess the incidence of unintended pregnancy on women who underwent laparoscopic tubal sterilization at Dr. Sardjito Hospital.

## METHODS

A descriptive observational study with retrospective cross-sectional design was conducted. Subjects were all women who underwent laparoscopic tubal sterilization at Dr. Sardjito Hospital, Yogyakarta, Indonesia from January 2009 to April 2015. The data were acquired from medical record. The procedures were performed by residents supervised by senior staff with previous experience in minimally invasive technique. The inclusion criterion was women with successful placement of rings in both tuba using laparoscopic approach. The exclusion criterion was incomplete medical record data. Reports of unintended pregnancy within two years after procedure were recorded.

## RESULTS AND DISCUSSION

Fifty-five women met the inclusion criterion and none were excluded. The age of the women at the time of sterilization ranged from 27 to

47 years, with a mean age of 36 years. Women of age group 35-39 years (40%) constituted the largest group

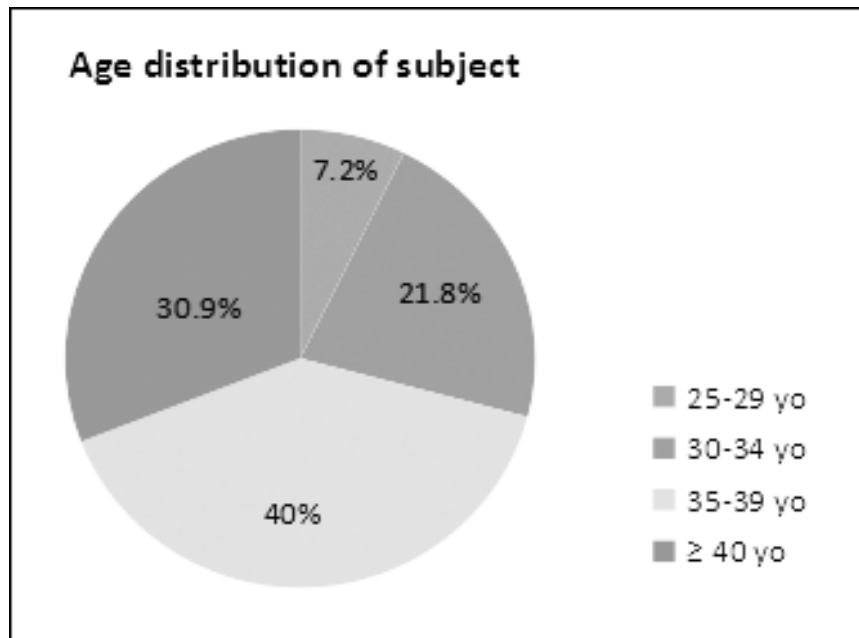


Figure 1. Age distribution of subject

In term of parity comparison, 43.6% of women were para 3, with range para 2-5 (Figure 2).

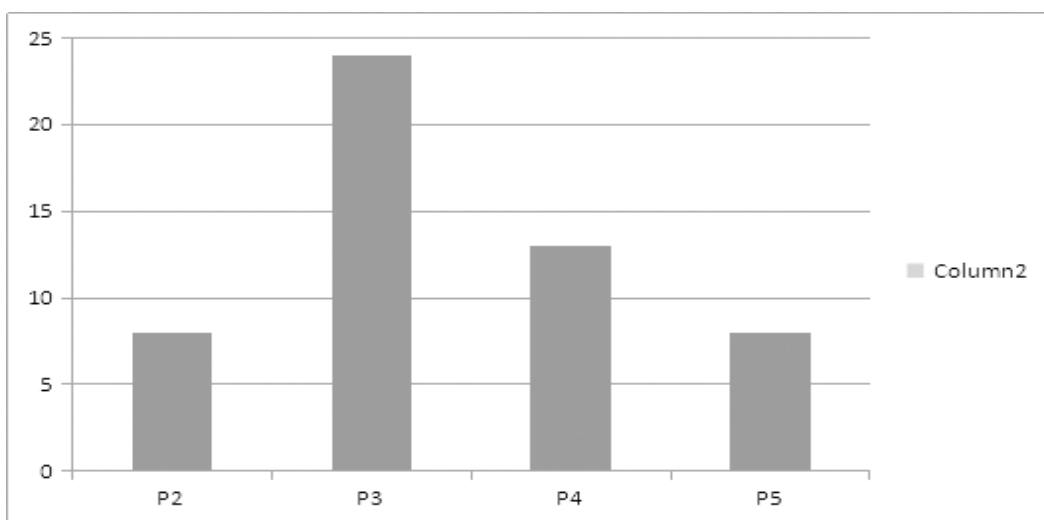


Figure 2. Parity of subject

Method failures resulting on pregnancy occurred in 3 cases (5.45 %), so the success rate of the procedure was 94.55%. All of the reported pregnancies happened within two years after the procedures. No mortality caused by the procedure was found. There was no major complication occurred in the procedure, but minor bleeding (<50 cc) did occur in some cases. The reported incidence of unintended pregnancy in the study was fairly higher than other studies. It is more likely that the technique performed to interrupt tubal patency influences this outcome. The experience of the operator could also contribute to the outcome since almost all of the procedures were conducted as part of residents training.<sup>1,4,5</sup>

Pregnancy after tubal sterilisation is less likely if an experienced practitioner has performed the procedure. Sterilisation failure may be the result of conception occurring before the procedure, incomplete occlusion, or the formation of fistula.<sup>6,7</sup>

## CONCLUSION

The incidence of unintended pregnancy on women who underwent laparoscopic tubal sterilization at Dr. Sardjito Hospital was higher than the average incidence reported on other studies. It is suggested that the training on this procedure is conducted more frequently with close supervision, therefore the incidence of unintended pregnancy could be reduced and the procedure could become standard female sterilization procedure performed at Dr. Sardjito Hospital.

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