

# Bilateral Tubal Ligation Versus Vasectomy: which Method of Surgical Contraception is More Prevalent?

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**Objective:** To determine whether female or male method of voluntary surgical contraception is more prevalent?

**Study Design:** Observational study.

**Place and Duration of Study:** This study was carried out in Population Welfare department, Faisalabad from July 2007 to June 2008.

**Patients and Methods:** During this study, the total number and CYP (couple yearly protected) of bilateral tubal ligation and vasectomy performed in all family planning centers / Reproductive health centers of Government/private sectors and Non government organizations of District FSD, performed in one year from July 2007 to June 2008 was recorded on a printed proforma. The data was shifted to computer for analysis. The software used for analysis was SPSS version 10, and descriptive statistics used for analysis. Chi-square test was chosen as test of significance.

**Results:** A total of 6938 bilateral tubal ligations with CYP of 86725 were performed as compared to 1602 vasectomies with CYP of 20025 in one year. The difference is significant statistically ( $p$  – value > 0.05) as well as therapeutically in terms of CYP.

**Conclusion:** Bilateral tubal ligation / female voluntary surgical contraception is a more prevalent method of surgical contraception as compared to male voluntary surgical contraception.

**Key Words:** Bilateral tubal ligation, vasectomy.

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## Introduction

Pakistan is a low income, 6<sup>th</sup> most populous country in the World with a population of over 157 million and growth rate of around 1.86 percent per annum an annual addition of almost three million.<sup>1</sup> It is estimated that at the current growth rate, the population of Pakistan will be 217 million by 2020.<sup>2</sup> According to “Status of women reproductive health and family planning survey 2003” number of maternal deaths daily is 57.<sup>3</sup> An additional 32% of women of child bearing age remain at risk of unintended pregnancy.<sup>4</sup> Based on these growth patterns and trends, in the back drop of low socioeconomic indicators, a matter of deep concern is control of growth rate. Voluntary surgical contraception is one of the best methods available when the desired family size has been achieved.<sup>5</sup> It is also desirable for women for whom another pregnancy might be detrimental to health.<sup>6</sup> It is the most effective contraceptive method and a one-time procedure intended to be permanent for both man and woman. It entails bilateral tubal ligation (BTL) in woman and Vasectomy in man.

Various studies<sup>7-9</sup> have shown that bilateral tubal ligation is a more prevalent method of surgical contraception than vasectomy. The aim of this study was to determine whether BTL is more prevalent method of surgical contraception than vasectomy?

## Aims and Objectives

To determine whether female or male method of surgical contraception is more prevalent?

## Patients and Methods

This study was carried-out in Population Welfare Department, FSD, in one year from July 2007 to June 2008. During this study data was collected from District population welfare office, FSD, where monthly reports of bilateral tubal ligations and vasectomies performed in family planning centers and Reproductive Health Centers of Government / private sectors and non Government organizations of district FSD are deposited. The total number and CYP (couple yearly protected) of bilateral tubal ligations and vasectomies performed in all family planning centers / Reproductive health centers of Government / private sectors and Non government organizations of District FSD, performed in one year from July 2007 to June 2008 was recorded on a printed proforma. The data was shifted to computer for analysis. The software used for analysis was SPSS version 10, and descriptive statistics, Chi-square test used for analysis.

## Results

A total of 6938 with CYP of 86725 bilateral tubal ligations were performed in family planning centers / reproductive health centers of Government / private sector and non Government organizations of District FSD, in one year from July 2007 to June 2008. The number of vasectomies performed in the same period was 1602 with CYP of 20025.

The difference in number of bilateral tubal ligations performed in one year as compared to vasectomies is significant statistically ( $p$  – value > 0.05) as well as therapeutically in terms of CYP (couple yearly protected).

## Discussion

Worldwide, more than 190 million couples chose voluntary surgical contraception/sterilization as their contraceptive method.<sup>10-12</sup> In USA it is used by 39% of contracepting reproductive age group couples.<sup>13</sup> However in Pakistan the rate remains low. Pakistan is a low income, one of the highly populous country with growth rate of 1.86%<sup>1</sup> and maternal mortality ratio of 300-700/1000 live births.<sup>14</sup> Current contraceptive prevalence rate is 32.1%.<sup>3</sup> It is far below to achieve the target growth rate.

An average woman in Pakistan gives birth to 4 child in her life time,<sup>15</sup> and 5% of all the births being in the age group of 15 – 19 years.<sup>16</sup> On an average, every year 20,000 mothers die due to causes related to pregnancy and child birth.<sup>17</sup> Based on these facts and figures, reducing high fertility remains a crucial factor for the health of mother and child. Current contraceptive prevalence is estimated to be around 32.1%. However pattern of contraceptive usage indicate that contracepting reproductive age couple use reversible methods of contraception in 77% of cases, and surgical contraception constitute only 23%.<sup>3</sup>

The voluntary surgical contraception is a major component of all family planning programmes in developing countries.<sup>18</sup> Both bilateral tubal ligation and vasectomy are performed under local anesthesia.<sup>19-22</sup> The client is sent home after few hours as no hospital admission is required. Bilateral tubal ligation can be performed at cesarean section, within 48 hours of delivery or as an interval procedure in puerperium or after miscarriage. Vasectomy can be performed at any time. It is a highly effective,<sup>9,23</sup> simple,<sup>24</sup> safe,<sup>23-25</sup> quick, and less complicated surgical procedure,<sup>23-26</sup> with an additional benefit of being easily reversible<sup>27</sup> and cost effective<sup>28</sup> as compared to BTL. It is not castration, and does not affect testes and sexual ability.

Various studies<sup>7-9,23</sup> have shown that BTL is amore prevalent method of voluntary surgical contraception. The results of this study also indicate that BTL is more prevalent than vasectomy as only 1602 vasectomies were performed in one year in District FSD, as compared to 6938 BTL in the same district, in the same period, despite the fact that facilities for both procedures are readily available. Study by Dr Shahreen bhutta<sup>7</sup> also showed the same results. In that study only 15 vasectomies were performed as compared to 1148 BTL.

Although vasectomy is a simple, safe, effective, quick, readily reversibly method of voluntary surgical contraception as compared to BTL, and is not associated with major side effects, yet less rather least prevalent method of surgical contraception, raises certain questions i.e Does only female responsible for practicing contraception? What is the role of male in reproductive health of couple? or Is it a common societal behavior? Further studies are required to address the issue.

## Conclusion

BTL is a more prevalent method of voluntary surgical

contraception than vasectomy.

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