THE COST EFFECTIVENESS OF VASECTOMY REVERSAL VERSUS SPERM CRYOPRESERVATION AND INTRAUTERINE INSEMINATION

Jeannette M. Potts, M.D., Fabio F. Pasqualotto, M.D., Anthony J. Thomas Jr., M.D., David Nelson, M.S., and Ashok Agarwal, Ph.D.,
The Cleveland Clinic Foundation, Cleveland, OH (presented by Dr. Potts)

INTRODUCTION: More than 30 million couples worldwide use vasectomy as their method of birth control. It is estimated that 4% to 10% of men who undergo vasectomy will request a reversal. Because vasectomy reversal is costly and the success rate varies from 30% to 76%, we assessed the cost effectiveness of an alternative to surgical reversal, namely sperm banking and subsequent intrauterine insemination (IUI).

MATERIALS AND METHODS: Pregnancy rates were compared between vasectomy reversals and IUI in a retrospective study. High risk men were defined as young men (ages 20 to 29 years old) requiring reversal more frequently and at a later period in life (after 10 years) compared to men greater than 30 years in age. Vasectomy reversal was compared with IUI in term of cost per pregnancy. Cost per pregnancy for surgical reversal was based upon the cost of the intervention multiplied by the number of patients who would undergo such procedure, divided by the actual delivery rate (44%). IUI cost per pregnancy was based upon the initial cost of cryopreservation of sperm, maintenance fees, and the cost of three cycles of IUI, and divided by successful pregnancy (41%).

RESULTS: The average cost of a pregnancy resulting from vasectomy reversal was $12,727, which was significantly higher than $9,512 for a pregnancy with cryopreservation and IUI (a difference of $3,215). These results were calculated taking into account the interval of 10 years, which is the median interval for reversal in the high risk population.

CONCLUSIONS: We recommend that pre-vasectomy sperm cryopreservation with IUI be offered to younger men who wish to proceed with vasectomy due to its low cost and good success rate.