

## MEAN TUBULAR DIAMETER (MTD) IN CADAVERIC VERSUS CRYPTORCHID TESTES

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### ABSTRACT

Cryptorchidism refers to hidden testicle. It is a clinical condition where one or both testicles have been retained from entering the scrotum during the later part of the foetal period. Along with irreversible damage at both gross and cellular levels there is impairment of endocrine and reproductive functions of the testicles. As the incidence of cryptorchidism is very low and previously reported research and data on comparative findings between cadaveric and cryptorchid testes in the state of Bihar was not available this study was undertaken.

**KEYWORDS:** Cryptorchidism, testicle, scrotum, comparative.

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### INTRODUCTION

The testis is a white, ovoid organ that is normally 15 to 25 ml in volume[1], has a length of 4.5 to 5.1 cm[2], a diameter of 2.5cm[3] and weighs 10-15 grams[3]. The testicles are the only organs in humans that are located outside the body and have two main functions: to produce hormones, in particular testosterone and to produce male gametes, the spermatozoa[4]. Leydig cells are the prime source of testosterone[5,6,7] and contribute to about 5-12% of testicular volume[8,9,10]. Parenchyma of the testicle is divided into compartments separated by connective tissue septa [3,11]. Each septum divides seminiferous tubules into lobes [11]. Each seminiferous tubule contains developing germ cells and interstitial tissue[11]. In humans, interstitial tissue comprises 20-30% of total testicular volume[12].

Seminiferous tubules are long, highly coiled, looped structures, both ends of which usually terminate in the rete testis [11]. Each seminiferous tubule is about 200 $\mu$  in diameter [3]. They are surrounded by several layers of peritubular tissue[13]. Cryptorchid testicles of adults are much smaller than normal and there is no doubt that undescended testicles not operated upon early in life are seriously damaged[14].

### MATERIALS AND METHODS

Both apparently normal testes were carefully dissected and removed from an adult cadaver. These were the control testes and labeled as "C". Four museum specimens of orchidectomized cryptorchid testes were examined both morphologically and histologically.