Research Article

Penile Length and Aging

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Abstract
Background: Both testosterone and dihydrotestosterone are necessary for normal penile growth, which is positively correlated with the increasing testosterone concentrations during puberty. The penis tends to undergo an actual and irreversible reduction in size as man ages. **Aim**: to measure the stretched penile length (SPL) in aging males and correlate the result with their serum level of total testosterone. **Patients and methods**: 103 patients were recruited then SPL was measured and serum was collected for testosterone measurement. **Results**: SPL has a non significant correlation with age, while serum testosterone show significant decrease with age. **Conclusion**: Penile length does not decrease in males with aging, while serum level of testosterone does.
Keywords: penile, testosterone, size, age

Introduction
The number of males seeking andrological consultation for the problem of 'short penis' is increasing (Mondaini et al., 2002). Wylie and Eardley (2007) had stated that there was no overall difference in penile length with age when they collated the results of various studies.

The concentration of circulating testosterone decreases with aging, but, on average, this decrease is small and the level remains within the normal range in most men. However, some aging men develop a mild testosterone deficiency, which can be associated with diffuse symptoms reminiscent of hypogonadism in young men (Wang et al., 2009).

Patients and methods
The present study was conducted on 103 aged men ≥ 50 years old. The study was approved by the Committee for Postgraduate Studies and Research of Minia University. All patients provided written informed consent before starting the study.

All patients were subjected to complete history taking including personal, present and past history.

Penis was stretched and held parallel to the floor. It was measured by using a ruler with millimeters markings along the dorsum of the penis. Serum was collected for testosterone measurement by enzyme immunoassay.

Statistical analysis was done using computer programs: Microsoft excel version 10 and Statistical Package for Social Science (SPSS) for windows version 20.0. The level of significance was taken at p value of < 0.05.

Results
The present study was conducted on 103 males. Their ages ranged from 50 to 85 years with a mean 61.78 ± 7.88 years. On comparing SPL with age, it was non-significant. As regarding the level of serum free testosterone among the studied groups ranging from 0.13 to 32.20 pg/ml. We found significant decrease when we compare serum level of FT with increasing age. On comparing SPL with serum level of free testosterone, penile length showed non-significant correlation with it.

Discussion
The penis is the symbol of masculinity. In many cultures, it has come to symbolize attributes such as largeness, strength, endurance, ability, courage, intelligence, knowledge and dominance over women (Talalaj and Talalaj, 1994). So, measurement of penis is of great importance, as most men are concerned about their phallus normality (El Batrawy et al., 2011). Also, some patients may present complaining of change of their penile length with aging.

We found a non-significant statistical difference on comparing SPL with age. Wessells et al., (1996) had classified 2 groups of men by age as ≤ 40 years (group A) and > 40 years (group B)

to study the effect of age on SPL. The relation was insignificant. SPL was 13.30 cm and 12.27 cm in group A and B, respectively. Concerning the relation between penile size and age, our result disagrees with Schoenfeld and Beebe (1942). This old study had demonstrated an increase in stretched penile size until the age of 17 years old with a consecutive decrease in size as men got older. This could be due to decreased penile extensibility in aging men because of the loss of elasticity of the tunica albuginea (Bitsch et al., 1989).

As regarding the level of serum FT, it ranged from 0.13 to 32.20 pg/ml. We found a significant decrease when we compare serum level of FT with increasing age. The decrease of serum testosterone with aging could be described as an age-related physiological change. This decline could be attributed to either diminished testicular (Leydig cell) pro-duction of testosterone and/or reduced hypothalamic-pituitary stimulation (Lunenfeld et al., 2015)..

In conclusion, Our study demonstrated that SPL has a non significant correlation with age and testosterone. Also, we concluded that there was a significant decrease in testosterone with increasing age.

Conflict of interest: None

References

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