Age-related changes Cowper's glands

Aims and objectives

In men, after 50 years in Cowper's glands (CG) are found signs of involution, which progresses with age and after 70-80 years life acquires the characteristics of senile atrophy. The CG are surrounded by fibrous connective tissue, which makes them difficult to find, decrease in size and compacted [1,2]. Also in the literature there is evidence that the CG do not change their size as they age. When pathologic study of 100 pairs of CG of men from 16 to 82 years has shown that age-related changes of length, height and width of the glands were not statistically significant. Also, no age-related changes in the length of the main excretory CG [3,4].

Purpose.To study age-related features CG at ultrasonography.

Methods and materials

Ultrasound CG was performed in 76 volunteers aged 15 to 93 years. The shape, size, contours, echo, structure, vascularization and spectral indices of blood flow CG were studied.

Results

Installed the trend, reflecting the gradual decrease of the volume CG with age (r = - 0,22; p # 0,05). The maximum amount CG was in the age group up to 19 years, and the lowest in the group 70 - 79 years. Pronounced age-regression volume CG began with the age of 40. With age was reconstructed contours and echostructure CG. They expressed the blurred contours and uneven increase in echogenicity CG (p # 0,05). In older age groups echo CG was comparable to echo the surrounding tissue of the pelvis. For men older than 35 years was characterized by the appearance of small multiple cysts in the structure CG. The frequency and amount of retention cysts CG glands progressively increased in older age groups (p # 0,05). Form CG with age has not been changed. Age reduction was subjected to blood flow CG (p # 0,05) (Fig. 1 - 3).

Images for this section:

Fig. 1: Age-related changes Cowper's glands

© Department of functional and ultrasound diagnostics, Medical-diagnostic department N 1 of Municipal clinical hospital N 57 - Moscow/RU
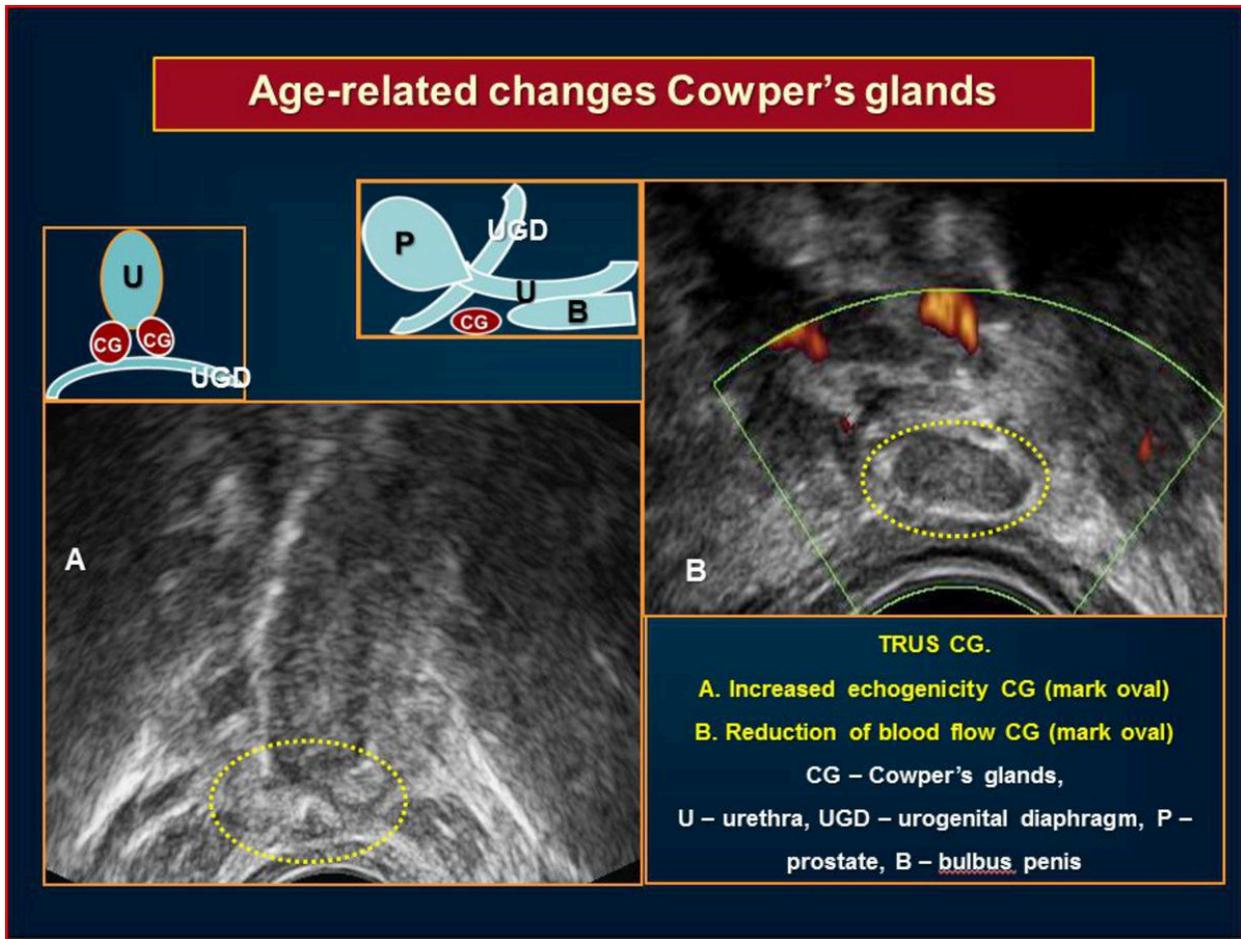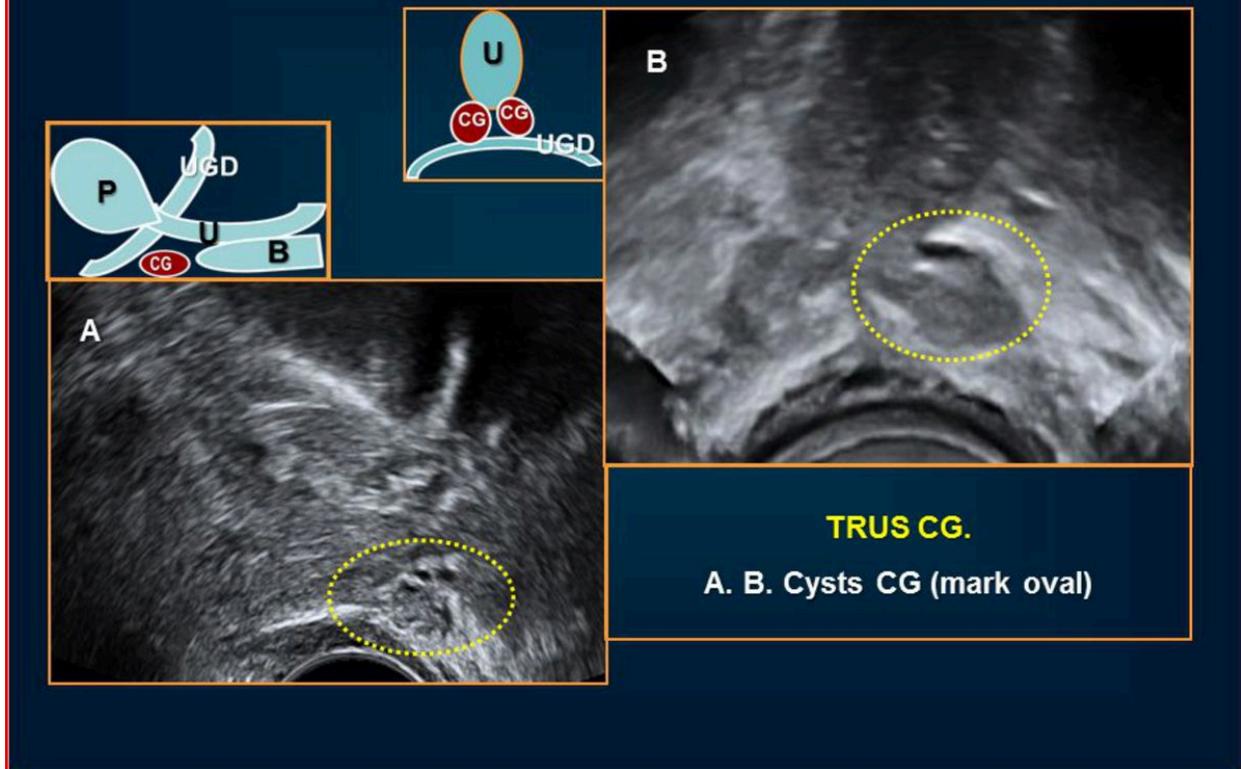
Fig. 2: Age-related changes Cowper's glands

© Department of functional and ultrasound diagnostics, Medical-diagnostic department N 1 of Municipal clinical hospital N 57 - Moscow/RU

Volume CG	The analyzed indicators	Index correlation coefficient (r)	The probability (p)
Volume CG	Age	- 0,022	P < 0,05
Volume CG	Body mass, kg	- 0,050	P > 0,05
Volume CG	Body height, cm	+ 0,012	P > 0,05
Volume CG	BMI	- 0,050	P > 0,05
Volume CG	Total volume testes, cm3	- 0,048	P > 0,05

The main correlations dimensions Cowper's glands in normal

The statistically significant correlation volume CG with body weight, height, BMI and size of the testicles is not installed, except age

Fig. 3: The main correlations dimensions #owper's glands in normal

© Department of functional and ultrasound diagnostics, Medical-diagnostic department N 1 of Municipal clinical hospital N 57 - Moscow/RU

Conclusion

With age CG are subject to change due to androgenic deficit. They are reducing the size, sclerotic and cystic restructuring CG, decrease of blood flow. Involutive changes CG must be considered in the diagnosis of diseases of the reproductive system.

Personal information

Prokhorov A.V., Medical-diagnostic department No1 of Municipal clinical hospital No57, Moscow, Russia, radiologist

Professor Alexander Igorevich Gromov,

Moscov Research and Practical Centre of Medical Radiology, *Director*

References

1. Standring S. (ed.). Gray's Anatomy. - 40th ed., Churchill Livingstone Elsevier. - London, 2008
2. Wein A.J., Kavoussi L.R., Novick A.C. et al. (eds.). Campbell-Walsh Urology. Vol. 1. - 9th #d., Saunders Elsevier. - Philadelphia, 2007
3. Sikorski A. Efferent ducts of the bulbourethral glands in man // Folia Morph. (Warsz). 1977. Vol. 36. N 1. P. 69 - 76
4. Sikorski A. Human bulbourethral glands in course of aging process in man // Folia Morph. (Praha). 1982. Vol. 30. N 2. P. 182 - 184