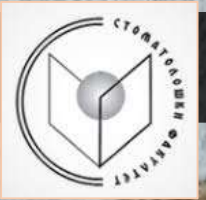




# INFLUENCE OF PROGESTERONE ON GINGIVAL HEALTH IN PUBERTY GIRLS

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**AIM:** TO EVALUATE THE INFLUENCE OF PROGESTERONE IN THE MAINTENANCE OF GINGIVAL HEALTH IN PUBERTY GIRLS, BY DETERMINING

- SERUM AND SALIVARY LEVELS OF PROGESTERONE IN PUBERTY GIRLS
- THE INFLUENCE OF PROGESTERONE ON THE GINGIVAL TISSUE, FOLLOWED BY CORRELATION WITH GINGIVAL INDEXES.

## MATERIAL AND METHODS

30 GIRLS AGED BETWEEN 11 AND 14 WERE DIVIDED IN TWO GROUPS- EXAMINED GROUP WITH SIGNS OF PUBERTAL GINGIVITIS (N=15) AND THE SAME NUMBER WITHOUT GINGIVAL INFLAMMATION (CONTROL GROUP). THE EXAMINATION OF SERUM AND SALIVARY LEVELS OF PROGESTERONE WAS PERFORMED WITH PROGESTERONE RIA - DSL 3400 ADVANCING DIAGNOSTICS TECHNOLOGY.



## RESULTS

THE RESULTS OBTAINED IN THE EXAMINED GROUP INDICATE THE PRONOUNCED PRESENCE OF GINGIVAL INFLAMMATION. PROGESTERONE LEVELS IN THE TESTED GROUP OF GIRLS VARIED FROM 0.32 ng/ml IN SALIVA TO 16.76 ng/ml IN SERUM AND FROM 0.27 ng/ml IN SALIVA TO 13.90 ng/ml IN SERUM AT PUBERTY GIRLS WITHOUT GINGIVITIS. CORRELATIVE VALUES COMPARING THE SERUM AND SALIVARY LEVEL OF PROGESTERONE AND GINGIVAL INDICES IN EXAMINED GROUP, INDICATE A POSITIVE CORRELATION WITH ALL INDEX VALUES. STRONG POSITIVE CORRELATION WAS NOTED FOR SERUM ( $r=0.82$ ) AND SALIVARY PROGESTERONE WITH GINGIVAL BLEEDING INDEX ( $r=0.80$ ).

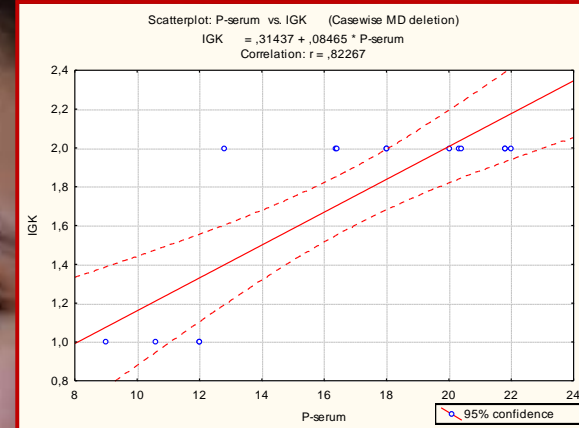


Fig. 1. Pearson correlation between progesterone and gingival bleeding

Progesterone (ng/ml)	gingivitis		without gingivitis	
	X	SD	X	SD
serum	16.76	4.45	13.9	2.97
saliva	0.32	0.18	0.27	0.15

Table 2. Progesterone values in serum and saliva in girls with and without pubertal gingivitis

Index	X	SD	min	max
Plaque In.	1.13	0.35	1.0	2.0
Calculus In.	0.73	0.45	0.0	1.0
Ging. inflammation	2.07	0.26	2.0	3.0
Ging. enlargement	1.93	0.26	1.0	2.0
BOP	1.73	0.46	1.0	2.0

Table 1. Indices in girls with puberty gingivitis

	Ging. Inflammation	Ging. enlargement	Bleeding index
	r		
P in serum	0.32	0.48	0.82
P in saliva	0.42	0.46	0.80

Table 3. Correlative values of progesterone (P) in serum and saliva with gingival indices

## CONCLUSION

THE LATEST FINDINGS ARE ANOTHER DIRECT CONFIRMATION OF THE INVOLVEMENT OF SEX HORMONES IN THE DEVELOPMENT OF GINGIVAL ALTERATIONS IN FEMALE CHILDREN DURING THE PERIOD OF PUBERTAL MATURATION, HENCE THE IMPORTANT ROLE OF DENTIST IN THIS PHYSIOLOGICAL PERIOD OF LIFE.