

THE STABILITY OF THE CORNEA AFTER CROSS LINKING IN PREGNANT WOMEN

Maja Boháč, Morena Gavrić, Neven Miličić
Specialty Eye Hospital 'Svjetlost', Zagreb, Croatia
School of Medicine University of Rijeka, Croatia

DISCLOSURE: None of the authors have a financial interest in any of the products or devices noted.

PURPOSE

- Estrogen and progesterone levels significantly increase during the pregnancy
- The increased hormone levels affect the cornea which becomes softer due to water accumulation
- Patients with keratoconus have softer corneas and pregnancy is known cause for disease progression

AIM

- To show if crosslinking alone is sufficient to prevent disease progression during pregnancy



METHODS

- Case study on 7 pregnant women (age 21-28 years) with keratoconus who underwent CXL (Dresden protocol) several months before pregnancy
- Five pregnancies were completed surgically and 2 vaginally
- Follow up period was until 12 months after delivery

RESULTS

BEFORE CXL						12 months AFTER PREGNANCY			
Patient	Eye	UDVA	CDVA	SimK	Elevati on back	UDVA	CDVA	SimK	Elevati on back
N°1	R	0.05	0.8	46.5	+67	0.05	0.8	46.4	+68
	L	0.05	0.9	47.7	+76	0.05	0.9	47.0	+71
N°2	R	0.2	0.5	48.8	+55	0.2	0.8	47.6	+57
	L	0.2	0.5	49.2	+81	0.2	0.5	49.4	+83
N°3	R	0.05	0.7	50.3	+97	0.05	0.8	50.5	+99
	L	0.1	0.9	48.6	+86	0.1	0.9	49.0	+90
N°4	R	0.2	0.6	47.9	+79	0.3	0.7	47.6	+78
N°5	R	0.05	0.5	40.2	+40	0.05	0.5	40.6	+43
	L	0.05	0.6	41.1	+42	0.05	0.6	41.1	+41
N°6	L	0.01	0.4	51.4	+117	0.02	0.5	51.3	+11.9
N°7	R	0.03	0.25	47.6	+33	0.5	0.5	46.7	+32

CONCLUSION

- All patients had negligible progression of keratoconus in pregnancy
- One year after delivery all corneas have remained stable even in women who have given birth vaginally
- Pre-pregnancy cross linked corneas remained stable despite all the hormonal changes in pregnancy and postpartum period

