Table 4-3. Koch/Wang Peripheral Corneal Relaxing Incision Nomogram for Patients With Naturally Occurring Astigmatism or Astigmatism After PRK or LASIK

NATURALLY OCCURRING OR AFTER PRK/LASIK: WTR ASTIGMATISM NOMOGRAM[a]

Preoperative Astigmatism (D)	*Patient Age (y)*	*Number of Incisions*	*Length (Degrees)*
0.75 to 1.00	<65	2	40
	≥65	1	45
1.01 to 1.75	<65	2	50
	≥65	2	45
>1.75	<65	2	60
	≥65	2	50

NATURALLY OCCURRING OR AFTER PRK/LASIK: ATR/OBLIQUE ASTIGMATISM NOMOGRAM[a]

Preoperative Astigmatism (D)	*Patient Age (y)*	*Number of Incisions*	*Length (Degrees)*
0.75 to 1.00	All ages	2	35 (or 1 at 40)
1.01 to 1.75	All ages	2	40
>2.00	Prefer laser enhancement		

Based on 600-µm depth and 9-mm optical zone.

[a]Based on refractive astigmatism.

Final Recommendations

1. Avoid transecting blood vessels with PCRIs, as vascular tissue promotes incisional scarring and wound contraction, causing regression of effect.
2. Avoid incisions greater than 4.5 mm in length along the horizontal or oblique meridians, as they may gape and lead to chronic foreign body sensation.
3. Be cautious in performing PCRIs in patients with dry eyes, especially along the horizontal meridian, as they can reduce corneal sensation and exacerbate dry eye symptoms.
4. Target for mild undercorrection because one can readily address undercorrections by enlarging the initial incision.

Key Points

- Quantify the astigmatism with 2 devices. One device should be a corneal topographer or Scheimpflug analyzer. The agreement between the devices should be within 0.50 D and 10 degrees.
- Compare the power and the axis from your devices to the manifest refraction and spectacle correction. If the PCRI procedure will not be combined with another surgery (eg, cataract