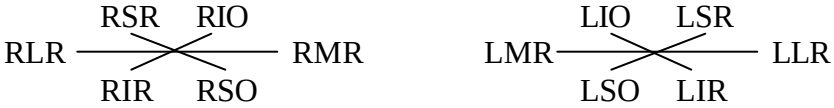
Parks Three Step

Purpose: The determination of the paralytic muscle involved in hypertropic strabismus.

Instrumentation: none- helpful to use a muscle action diagram:



Procedure/ Conclusion:

Observations: There are three main observations that the the clinician must make in determining the paralytic muscle involved:

1. In primary gaze, which eye appears more hypertropic (which eye is higher)
2. In secondary gaze to the right or left, which eye appears more hypertonic.
3. Beilchowsky Head tilt: Does one eye appear hypertropic with the head tilted toward the right or left shoulder?

Determining the hypertropic eye in each of the above positions, will lead you to which muscle is involved.

Example: (clinician is facing the patient)

1. In primary gaze, the patient's right eye appears more hypertropic.

   Instructions to the clinician whenm observing patient in primary gaze: The OD is more hyper in the primary gaze, thus there can be an overreaction of the RSR or RIO: therefore, circle RIR & RSO, one of which may be involved. On the left eye, circle LIO & LSR-- the muscles which may be paralytic and underacting, causing an apparent right hypertropia.

2. Upon secondary gaze to the patient's left, OS appears more hypertropic.

   Instructions to the clinician when observing parient in secondary gaze: Circle those muscle groups on the muscle action diagram which are to the patient's left-- or the field of restriction. Either of these muscle groups could be responsible for hypertropia on gaze to the left. (i.e. RIO & RSO and LSR & LIR)

3. Upon tilting the head to the patient's right shoulder, the patient's right eye is more hypertropic.

   Instructions to the clinician when observing head tilt: Circle the muscle group on right and left eye which parallel the patient's direction of head tilt. (i.e. RSR & RSO and LIO & LIR)

4. Determine the affected muscle by noting in the muscle diagram which muscle was circled three times after having performed steps 1,2, and 3.

   In this case, the affected muscle is the RSO.