***STANDARD OPERATING PROCEDURE FOR PTOSIS:***

***1. HISTORY:***

*1.1. Following points will be asked pertaining to the PRESENTING COMPLAINT:*

* The duration of time for which the patient is having drooping of eyelid
* If it is unilateral or bilateral
* If the onset was sudden or gradual
* If it has progressed over time or does it increase as day progresses
* If there are associated symptoms like pain, diplopia, headache, inability to close affected eye completely, difficulty in deglutition or respiration

*1.2. Any history of trauma or neurological deficit or any history of surgery in past.*

*1.3. If a known case of* hypertension, diabetes or myasthenia gravis.

*1.4. Any history of myasthenia in family.*

*1.5. Patient will be asked to get old photographs* (To verify the duration and type of ptosis).

***2.1OCULAR EXAMINATION:***

* Complete ocular examination, including vision, slit-lamp examination, corneal sensations and fundus examination will be done.
* Ptosis work up will include assessment of :
	+ - * + Lid crease: whether present or absent, its position.
				+ Lid retraction: whether present or not.
				+ Degree of ptosis will be noted and graded as mild, moderate and severe.
				+ LPS function will be assessed by lid excursion (Burke’s method) and graded as normal, good, fair and poor.
				+ Bell’s phenomenon: whether present or not.
	+ ***CONGENITAL PTOSIS:***
	+ We will look for following signs:
		- * + Lid crease
				+ Lid retraction on down gaze, abduction and adduction
				+ Blepharophimosis
				+ Ocular movements
				+ Hypotropia of involved eye
				+ Marcus Gunn Jaw winking sign
		- ***ACQUIRED PTOSIS:***
		- We will try to find out whether cause of ptosis is myogenic/ neurogenic/ aponeurotic/ mechanical.
		- We will be looking for these specific signs:
			* Cogan’s twitch sign
			* Third nerve palsy
			* Signs of Horner’s- ipsilateral miosis, enophthalmos, anhydrosis.
			* Any lid mass or scarring of conjunctiva tethering levator muscle.

***SPECIAL TESTS:***

* Ice pack test:
	+ Icepack will be kept on effected eye for 3 minutes and by comparing pre and post picture, any elevation of lid will be noted. Elevation of 2 mm or more will indicate myasthenia.
* Phenylephrine test:
	+ If positive, it will indicate Horner’s syndrome.

***2.2 SYSTEMIC EXAMINATION:***

* General physical examination of patient will be carried out.
* Preliminary musculoskeletal examination will be done including gait, muscle power and tone.
* In acquired case, for detailed examination (if a neurological or myogenic cause is suspected) patient will be referred to a neurologist.
* In congenital case, if any systemic association is suspected patient will be referred to pediatrician.

***3.1BLOOD INVESTIGATIONS:***

*They will be tailored according to clinical suspicion of the cause of ptosis*

* Antibody against Anti- Ach esterase Antibody if myasthenia is suspected.
* In patients who are planned for surgery:
	+ RBS
	+ HB, TLC, DLC, ESR
	+ Bleeding and clotting time

***3.2 RADIOLOGICAL INVESTIGATION:***

* X-Ray chest: (if myasthenia is suspected)
* MRI: (if any cranial nerve involvement or neurological involvement is suspected)
* CT scan head: (if post traumatic with suspected ICSOL)
* CT scan chest: (if myasthenia is suspected)

***4. TREATMENT:***

* In congenital cases: surgery will be deferred till 5 years of age, except in patients in whom ptosis is leading to occlusion amblyopia.
* Surgical treatment of ptosis will be done according to degree of ptosis, LPS function and age of the patient:
	+ Mild ptosis with good LPS function: Fasanella Servat operation
	+ Moderate ptosis with good LPS function: LPS resection
	+ Severe ptosis with poor LPS function: Frontalis sling
* In acquired cases: appropriate treatment based the cause will be given and if necessary the neurologist will be consulted for the same.

***CONGENITAL PTOSIS:***

 **SIMPLE WITH ASSOCIATED**

**ABNORMALITIES:**

Ptosis grade: MILD MODERATE SEVERE

LPS Function: GOOD GOOD POOR e.g. Blepharophimosis,

 Marcus Gunn Syndrome

 F.S. LPS Fr.Sl. These will require different types

 RESECTION of surgical procedures to be

performed in different stages.

* *\*F.S.- FASANELLA SERVAT*
* *#Fr.Sl.-FRONTALIS SLING*