

Left -sided VATS Thymectomy for Nonthymomatous Myasthenia Gravis Outcome Assessment

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Intro duction

- ▶ Thymus gland plays an important role in pathogenesis of Myasthenia Gravis.
- ▶ Myasthenia Gravis (MG):
 1. **Non Thymomatous MG (NTMG) :80%.**
 2. **Thymomatous MG (TMG) : 20%.**

INTRODUCTION

► Treatment:

1. Medical: acetylcholinesterase inhibitor & immunosuppressant & corticosteroid.
2. In acute phase: plasmaphoresis & IVIG.
3. Surgical:
 - Transcervical: Ernst Ferdinand Sauerbruch in 1911.
 - Transsternal: Alfred Blalock 1936 (partial) , Akira Masaoka (extended) in 1975.
 - Transsternal & Transcervical.
 - VATS: Sugarbaker in 1993.
 - RVATS.2003.Ashton.

MGFA Postintervention Status

► **Complete Stable Remission (CSR):**

No symptoms or signs of MG for at least 1 year and no therapy for MG during that time no weakness in any muscle on careful examination. Isolated weakness of eyelid closure is accepted.

► **Pharmacologic Remission (PR):**

The same criteria as for CSR except that the patient continues to take some form of therapy for MG (Patients taking cholinesterase inhibitors are excluded)

► **Minimal Manifestations (MM):**

The patient has no symptoms of functional limitations from MG but has some weakness on examination of some muscles. This class recognizes that some patients who otherwise meet the definition of CSR or PR do have weakness that is only detectable by careful examination .

MGFA Postintervention Status

► Improved (I):

A substantial decrease in pretreatment clinical manifestations or a sustained substantial reduction in MG medications.

► Unchanged (U):

No substantial change in pretreatment clinical manifestations or reduction in MG medications.

► Worse (W) :

A substantial increase in pretreatment clinical manifestations or a substantial increase in MG medications.

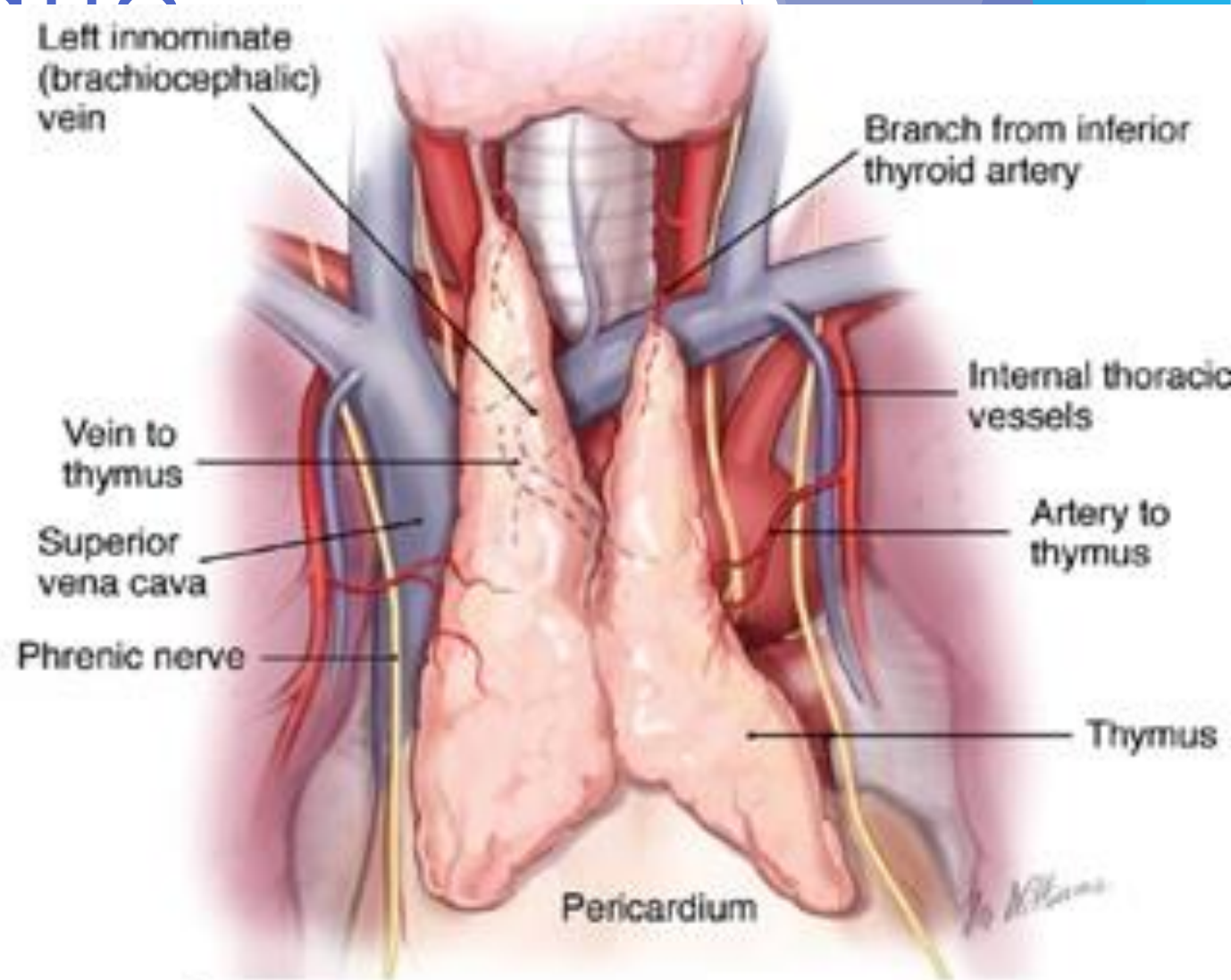
Exacerbation (E):

Patients who have fulfilled criteria of CSR, PR, or MM but subsequently developed clinical findings greater than permitted by these criteria.

► Died of MG (D of MG):

Patients who died of MG, of complications of MG therapy, or within 30 days after thymectomy.

VATS thymectomy technique



B

Methods

- ▶ A randomized control **prospective** study to evaluate the results of **left-sided vats thymectomy** for non thymomatous myasthenia gravis between (2013-2023)

With follow-up :**two years** at least in **Alassad University Hospital**.

- ▶ Age: Between 13- 65 years old.
- ▶ Classification: according of MGFA.
- ▶ Diagnosis: since < 5 years.
- ▶ Surgical period: (40- 90 minutes)
- ▶ Preoperative Plasmaphoresis: 8 patients.
- ▶ Thymus hyperplasia: 29 patients.

Methods

Exclusion Criteria:

- 1) Open surgery.
- 2) Thymomatous MG.
- 3) Age < 13 years old, or > 65 years old.
- 4) pregnant.
- 5) Diagnosis before > 5 years.

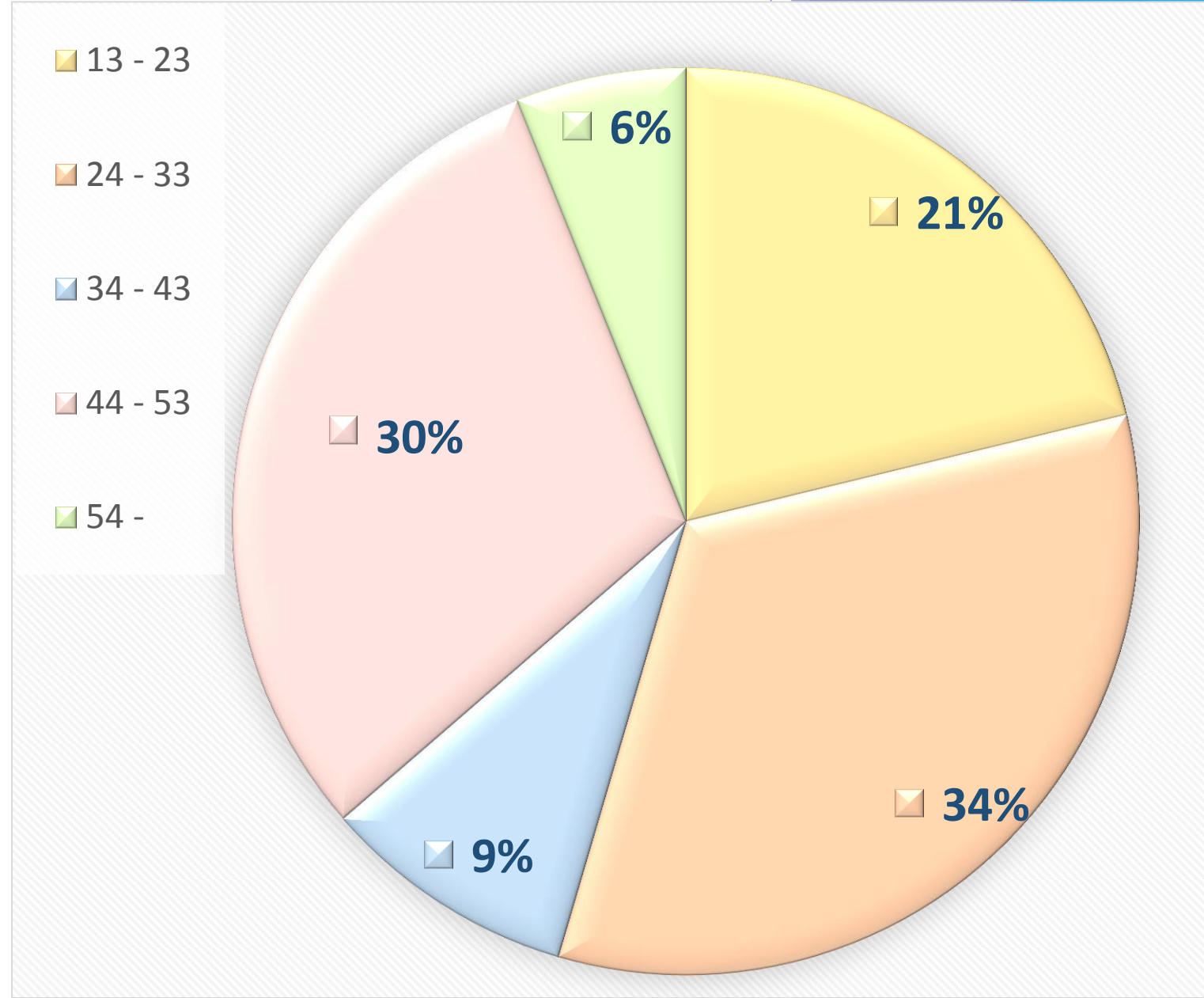
Methods

- ▶ 75 Patients underwent Left-sided thymectomy.
- ▶ 35 of them (46%) Thymomatous MG were excluded.
- ▶ 7 Patients did not follow-up.
- ▶ 33 patients with NTMG underwent this study.

Results

► According to age:

- Between: 13 – 65 years old.
- Average : 32 years.
- Standard Deviation: 12.36.

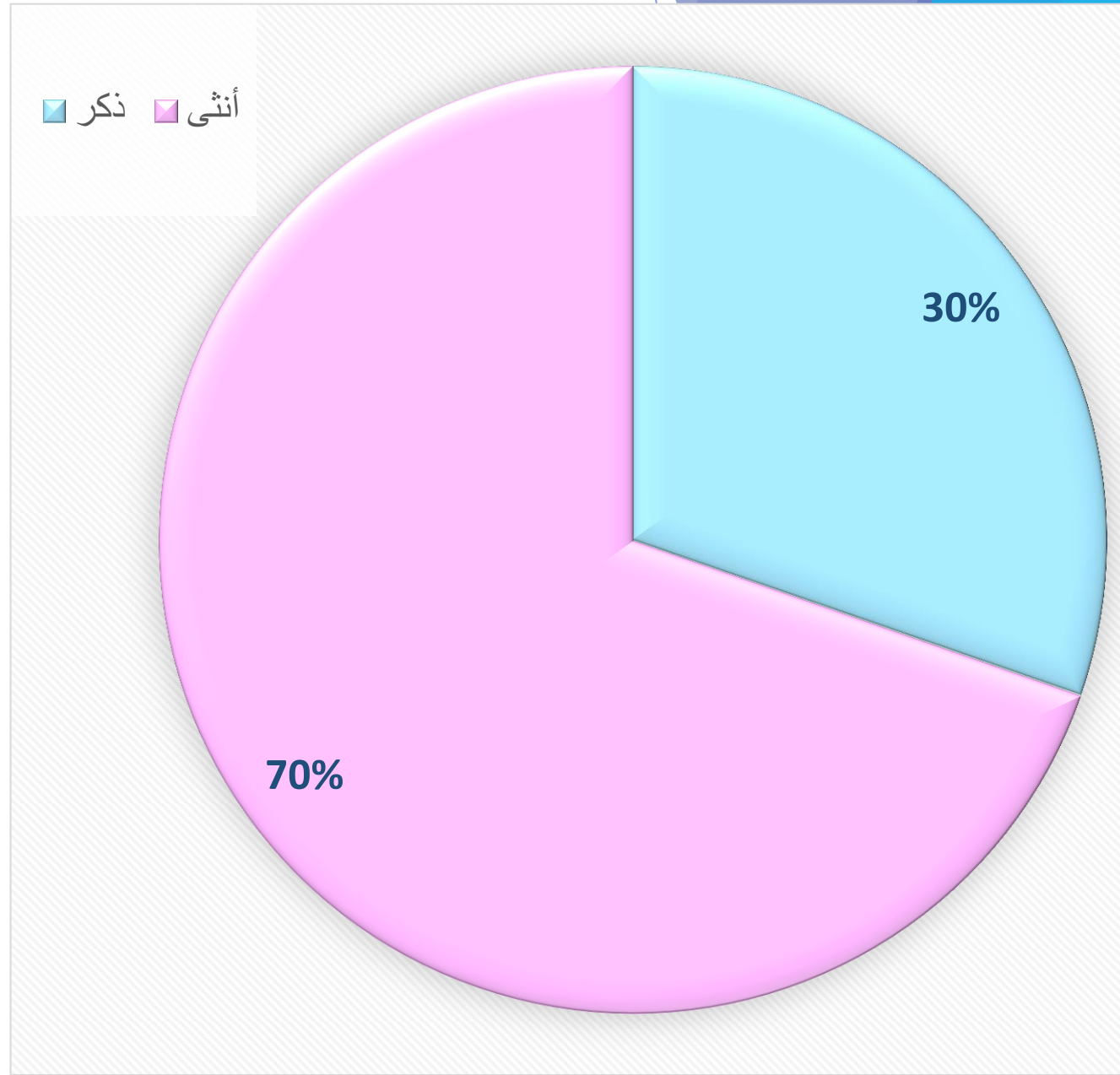


Results

► Sample distribution according to sex:

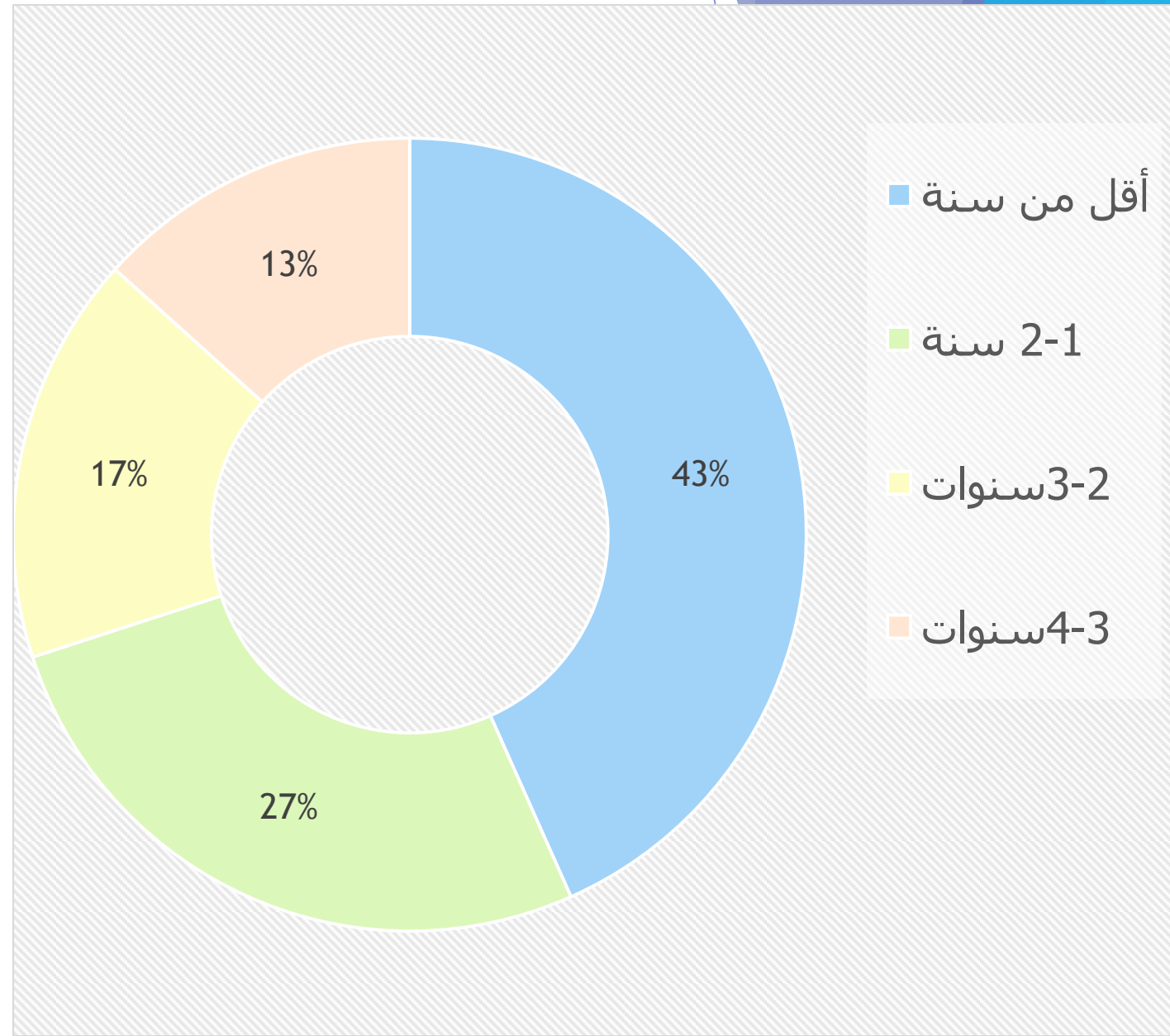
► 33 patients :

1. 23 female (70%) .
2. 10 male (30%) .



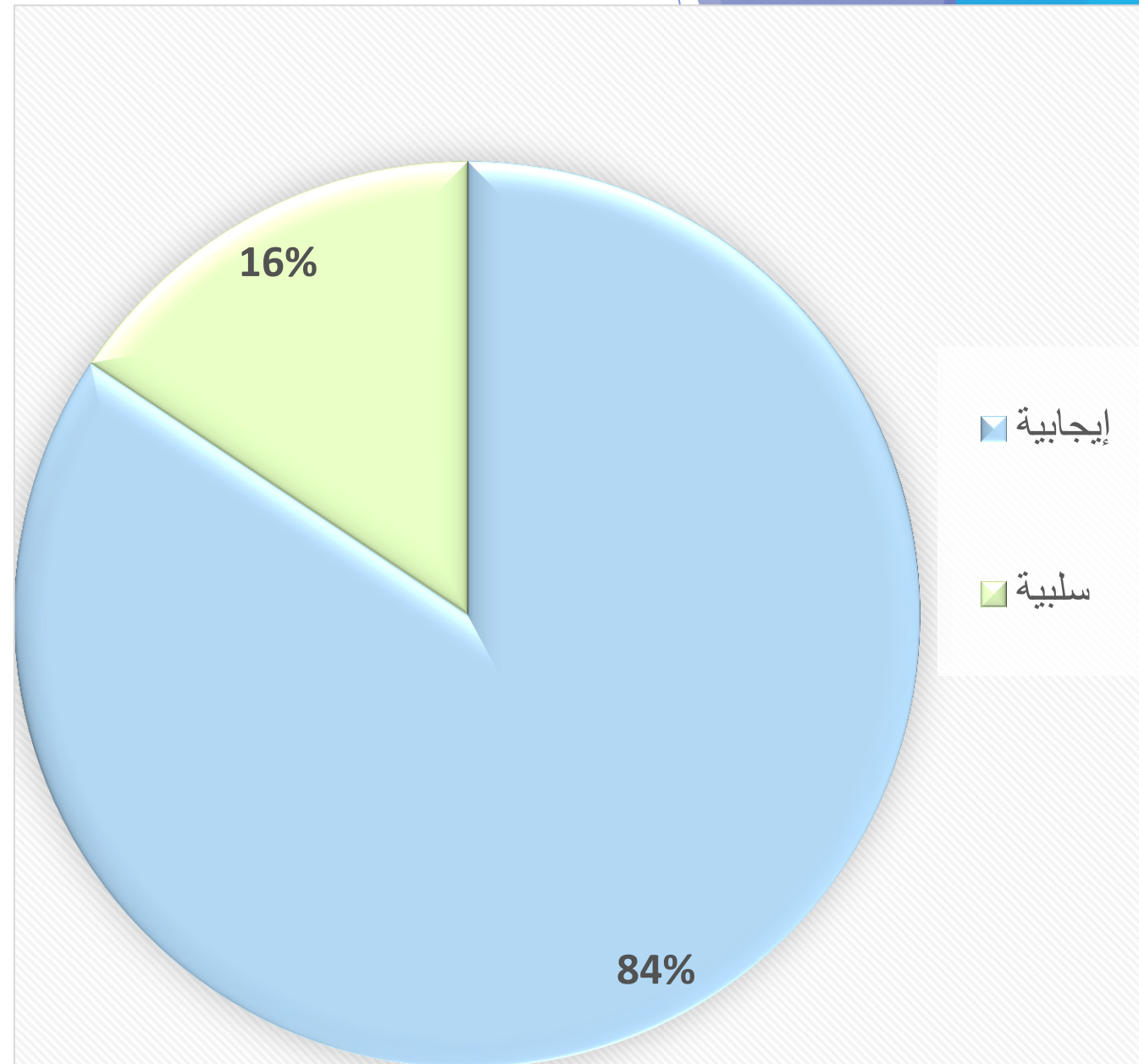
Results

➤ According to the period of symptoms



Results

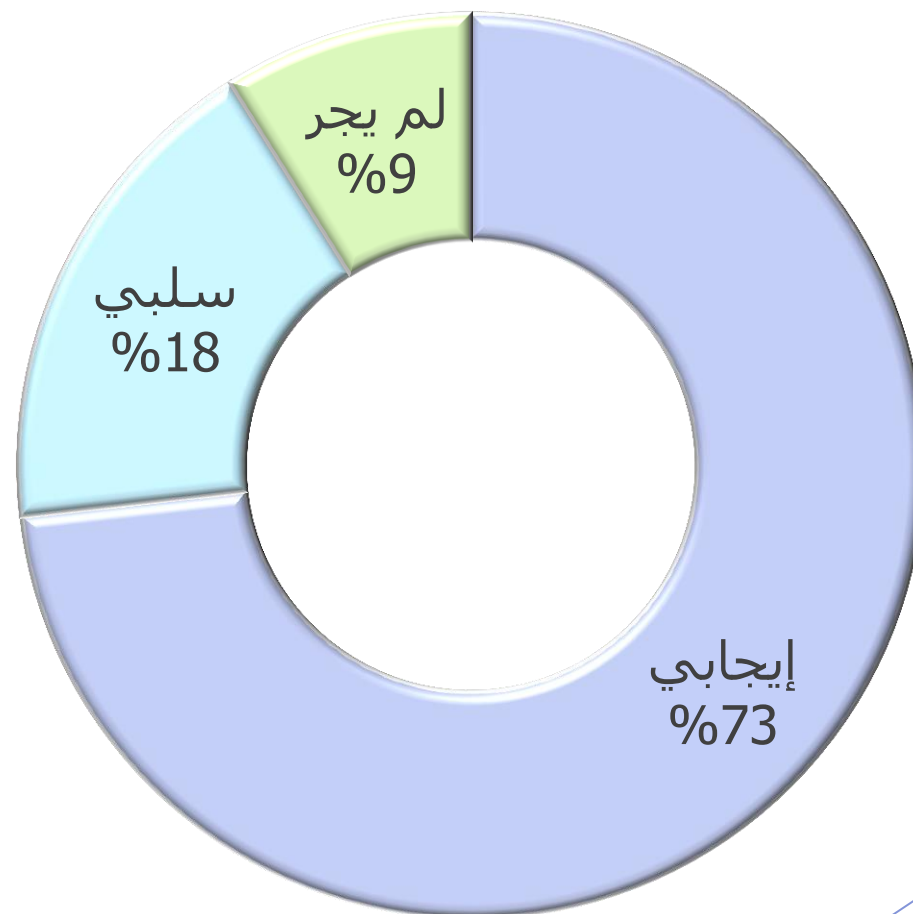
► According to
AChR AB:



Results

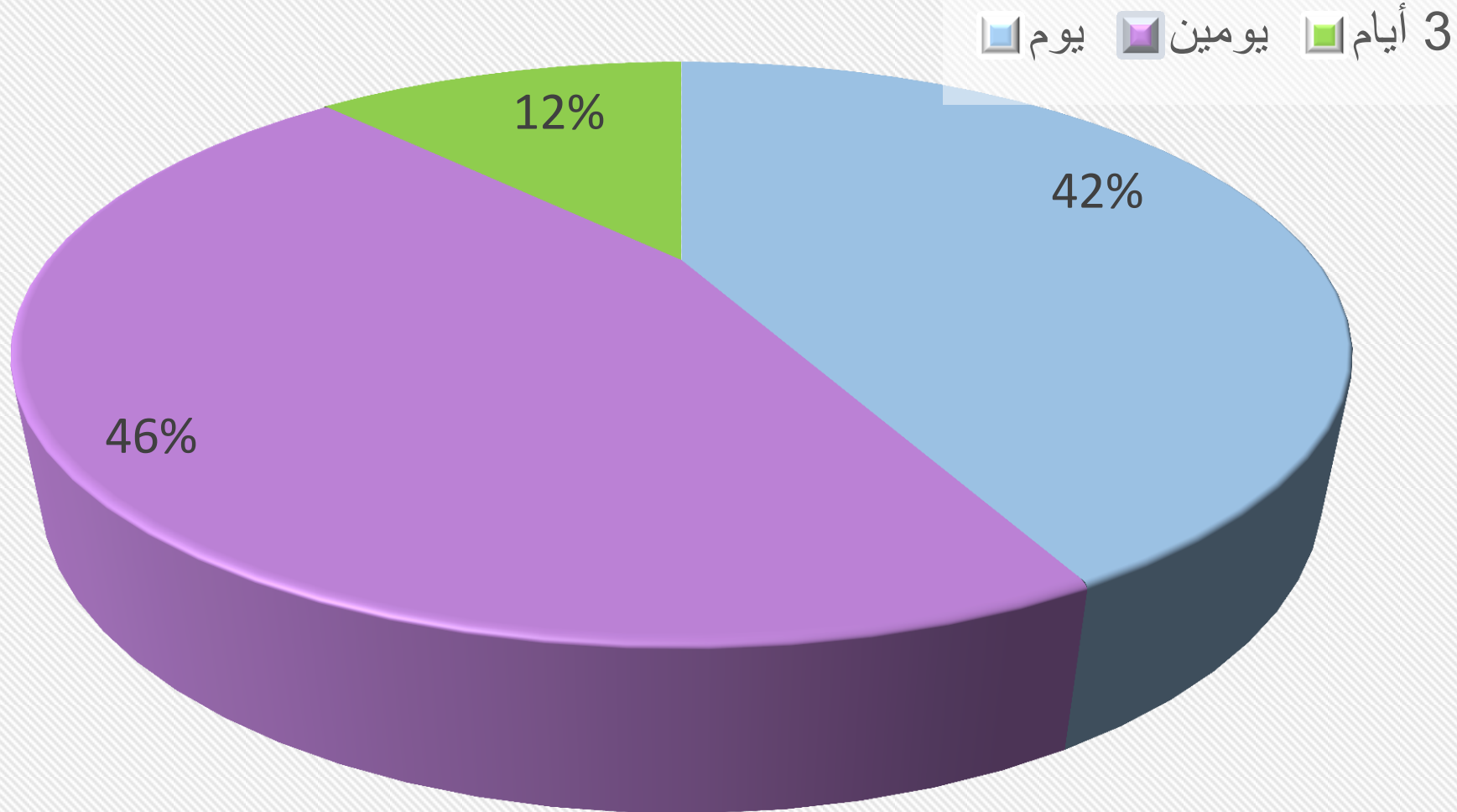
according to

Repeated nerve stimulation



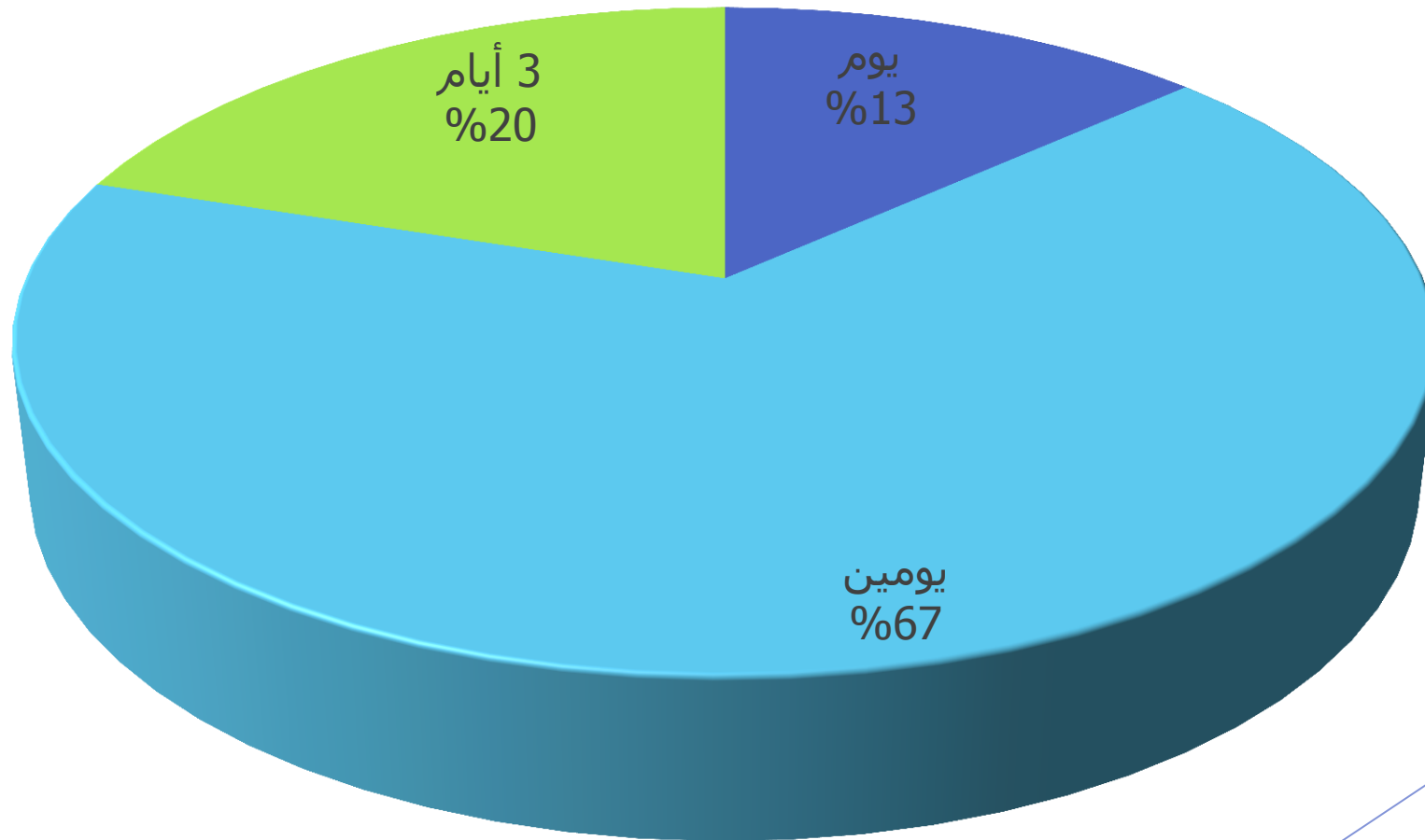
Results

According to stay the chest tube:



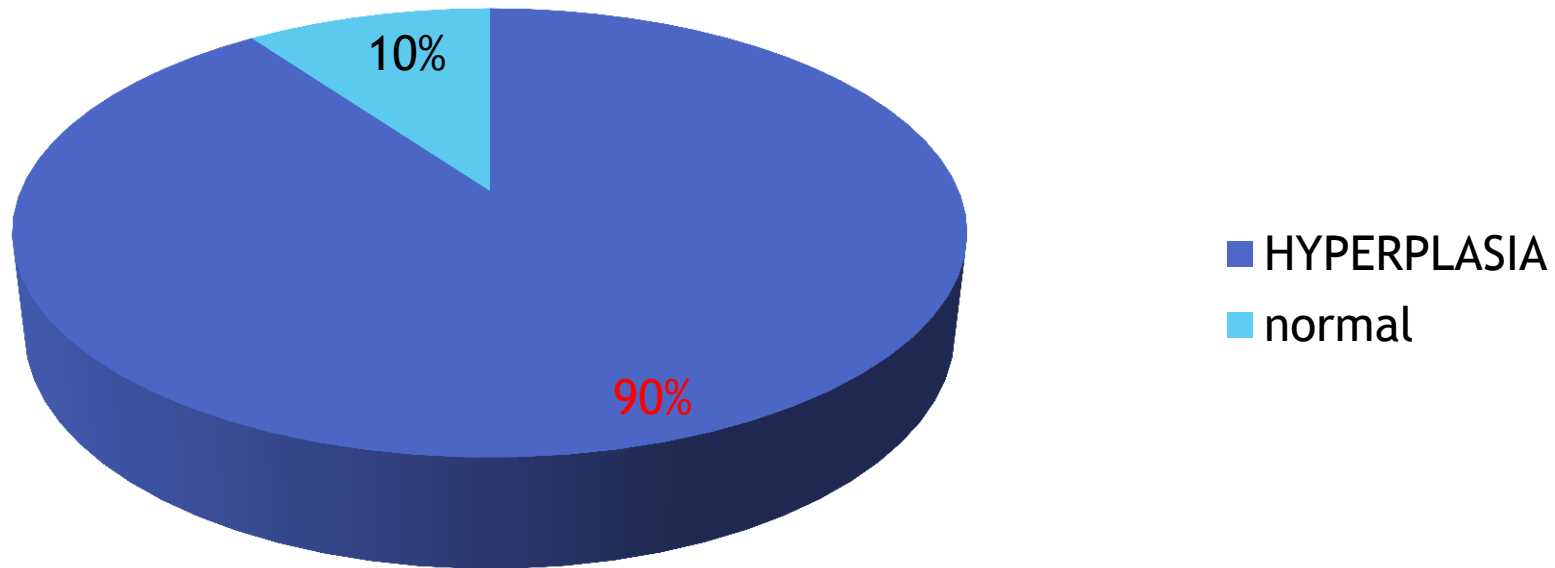
Results

► According to length of stay in hospital(LOS):



Results

according to pathology



Results

According to complications:

المخطط ٧ : توزع مرضى العينة حسب نسبة الاختلاطات خلال وبعد الجراحة :



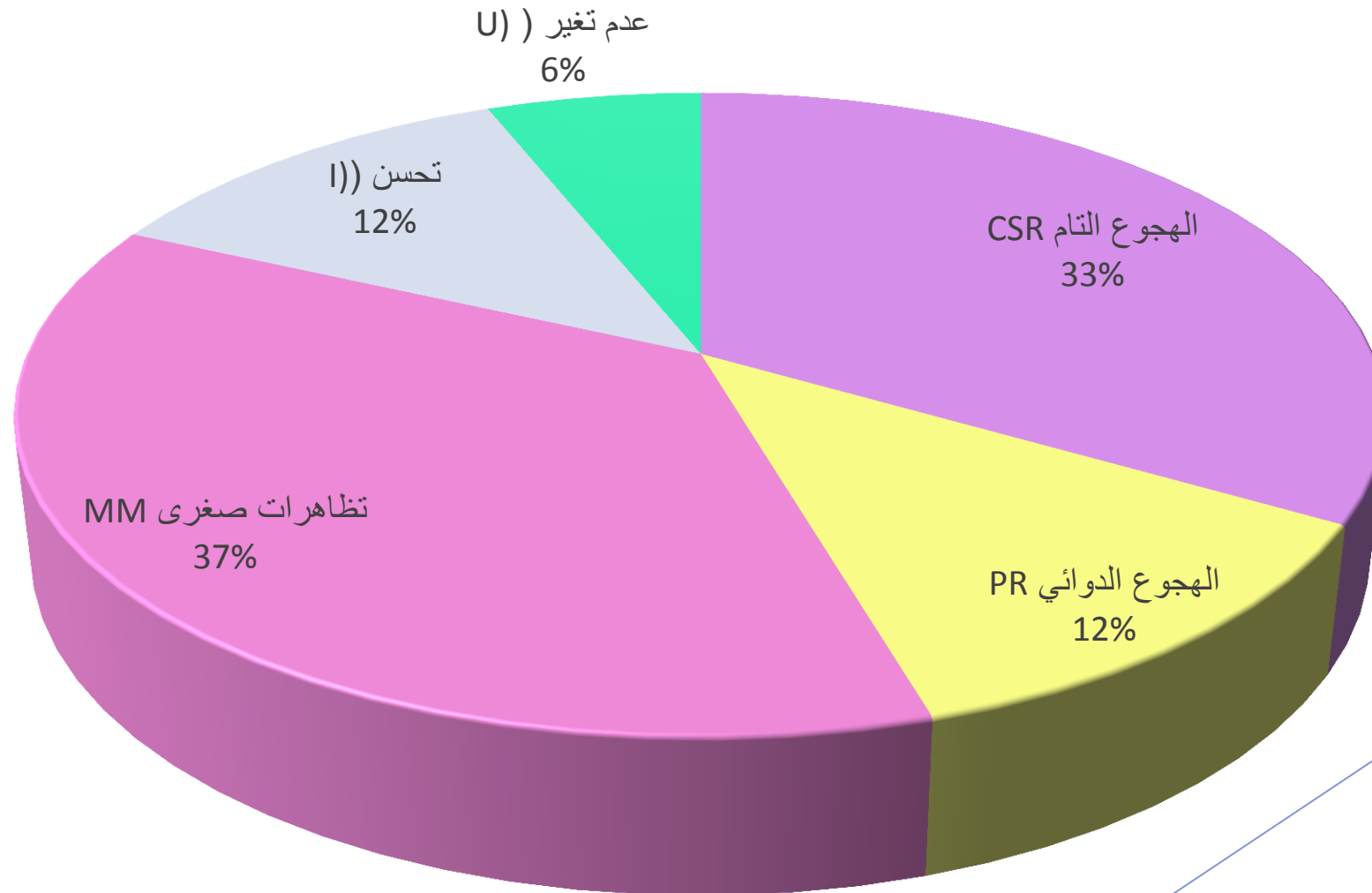
Results

► According to result of surgery

Two years	A year	6 months	3 months	After a month	المتابعة
N=11 (33.3%)	–	–	–	–	CSR
N=4 (12%)	N=3 (9%)	–	–	–	PR
N=14 (46.4%)	N=12 (36.4%)	–	–	–	MM
N=4 (12%)	N=12 (36.4%)	N=25 (75.8%)	N=21 (63.6%)	N= 9 (27.3%)	I
N=2 (6%)	N=3 (9%)	N=8 (24.2%)	N=10 (30.3%)	N= 23 (69.7%)	U
0%	0%	0%	0%	0%	W
0%	0%	0%	N=2 (6%)	N=1 (3%)	E
0%	0%	0%	0%	0%	D
33	33	33	33	33	total

Results

According to the result of surgery



Results

variante	Category	KM-2 Year CSR	P- Value
Age	<30	72.7 %	0.58
	>30	27.3%	
Sex	Female	63.63%	0.9
	Male	36.36%	
Period of diagnosis	< one year	63.63%	0.9
	> One year	36.36%	
ACHR AB	positive	90.9%	0.6
	negative	9.1%	
Repeated nerve stimulation	positive	72.7%	0.9
	negative	9.1%	

CONCLUSION

- ▶ There are many advantages of VATS thymectomy over a traditional open approach (i.e. sternotomy):
 - Less pain
 - Lower complication rate
 - Lower risk of infection
 - Shorter operative time thus less anesthesia
 - Shorter hospital stay and decreased recovery time

CONCLUSION

- has better preserved lung function in the early postoperative period (an important consideration for MG patients).
- gives superior cosmesis.
- Good results(HIGH CSR'PR'MM & I).
- ▶ Video-assisted thoracic surgery demands a new set of manual skills compared with conventional surgery, but the learning curve is steep for those experienced with open surgery.
- ▶ Encouraging the adoption of this method in treating NTMG instead of traditional methods.

THANK YOU