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TYMPANOMETRY BEFORE, AFTER THE VALSALVA MANOEUVRE AND AFTER  
AUTOINFLATION WITH OTOVENT IN DIFFERENT CLINICAL GROUPS.

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The function of the Eustachian tube plays an important role in the symptoms, pathogenesis and sequelae of most middle ear diseases. In this study we have evaluated the effect of the commonly used Valsalva manoeuvre compared to autoinflation with Otovent, to increase the middle ear pressure, as an indicator of the Eustachian tube patency in different clinical groups. In all the subjects tympanometry was performed, before after the Valsalva manoeuvre and after Otovent inflation.

The following groups were tested:

- 1: In children with normal eardrums 59% could not increase the middle ear pressure after performing the Valsalva manoeuvre. Of the children with negative Valsalva test 46 % could increase the middle ear pressure after the Otovent inflation.
- 2: Children with eardrum pathology. Of these children 58% had negative Valsalva, of these 53% had positive Otovent test.
- 3: In cleft palate children, 40% could not create positive pressure after Valsalva, of these 68% had positive middle ear pressure after the Otovent balloon inflation.
- 4: Adults with normal eardrum, 48% of the normal adults had negative Valsalva, 56% of these had positive Otovent test.
- 5: In chronic otitis patients after earsurgery as expected more than the normal adults had negative Valsalva test 61%. It was a surprize for us that 55% of these could create positive middle ear pressure after the Otovent inflation.

We conclude that if negative middle ear pressure can not be cleared performing the Valsalva manoeuvre. Otovent inflation should be the initial treatment.

Increase in middle ear pressure after Valsalva and after Otovent inflation, in different groups.

	Children			Adults	
	Normal eardrum	Eardrum pathology	Cleft palate	Normal eardrum	Chronic otitis
Positive VALSALVA	41 %	42 %	60 %	52 %	39 %
Negative	59 %	58 %	40 %	48 %	61 %
Positive OTOVENT	61 %	67 %	80 %	76 %	72 %
Negative	39 %	33 %	20 %	24 %	28 %

1) CHILDREN WITH NORMAL EARDRUM: Increase in middle ear pressure after Valsalva and after Otovent inflation.

		Otovent inflation		Total
		Negative	Positive	
Valsalva	Negative	32 %	27 %	59 %
	Positive	7 %	34 %	41 %
Total		39 %	61 %	n = 114

2) CHILDREN WITH EARDRUM PATHOLOGY: Increase in middle ear pressure after Valsalva and after Otovent inflation.

		Otovent inflation		Total
		Negative	Positive	
Valsalva	Negative	27 %	31 %	58 %
	Positive	6 %	36 %	42 %
Total		33 %	67 %	n = 33

3) CLEFT-PALATE CHILDREN: Increase in middle ear pressure after Valsalva and after Otovent inflation.

		Balloon inflation		Total
		Negative	Positive	
Valsalva	Negative	13 %	27 %	40 %
	Positive	7 %	53 %	60 %
Total		20 %	80 %	n = 30

4) ADULTS WITH NORMAL EARDRUM: Increase in middle ear pressure after Valsalva and after Otovent inflation.

		Balloon inflation		Total
		Negative	Positive	
Valsalva	Negative	21 %	27 %	48 %
	Positive	3 %	49 %	52 %
Total		24 %	76 %	n = 201

5) CHRONIC OTITIS PATIENTS AFTER EAR SURGERY: Increase in middle ear pressure after Valsalva and after Otovent inflation.

		Otovent inflation		Total
		Negative	Positive	
Valsalva	Negative	28 %	33 %	61 %
	Positive	-	39 %	39 %
Total		28 %	72 %	n = 36

Increase in middle ear pressure after Valsalva and after Otovent inflation, in different clinical groups.

	Children			Adults	
	Normal eardrum	Eardrum pathology	Cleft palate	Normal eardrum	Chronic otitis
Positive VALSALVA	41 %	42 %	60 %	52 %	39 %
Negative VALSALVA	59 %	58 %	40 %	48 %	61 %
Positive OTOVENT	61 %	67 %	80 %	76 %	72 %
Negative OTOVENT	39 %	33 %	20 %	24 %	28 %