Value diagnostic of FNA in Glan Clwyd Head and Neck Unit

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Background:

There was a need to know our management of FNA in non-Thyroid Head and Neck cancer and comparing our results to a current good reference was an opportunity to see if there was a room for improvement.

Methods:

We reviewed one year of FNA performed by Pathology department and related to Non-thyroidal Head and Neck lesions. Main results were Diagnostic Value of FNA by means of Sensitivity, Specificity, Accuracy, Positive Predictive Value and Negative Predictive Value.

Results:

Our pathology department manage to get similar percentages of Benign and Malignant pathology when comparing to a reference (Goret et al 2013). 20.6 percent of patients required FNA due to inadequacy of the sample.

	Reference (n=866)	Our Study (n=383)
Inadequate (C1)	17,3%	20,6%
Benign (C2)	56,4%	36,6%
Most likely Benign (C3)	0,01%	10,7%
Most likely Malignant (C4)	8,1%	6,9%
Malignant (C5)	21,4%	25,2%
Total cases	N=248	N=131

Main results showed that there is an acceptable diagnostic value for FNA when comparing to concurrent published data.

Diagnosis	Year	N	Se	Sp	Accuracy	PPV	NPV
Our	2016	383	81	98	90	98	84
Goret *	2013	866	98	97	96	96	97
Addams	2009	238	92	90	-	92	90
Ersoz	1998	584	78	94	89	89	88

- Positive Predictive Value and Specificity were almost perfect (98%). Accuracy was still outstanding (90%). However, results from Sensitivity (81%) and Negative Predictive Value (84%) were acceptable but in the low end of acceptability. This was due to 9 False negative and one false positive over a 131 patients for what we had histology.

Type	Local	FNA	Histology
F-	LN	Granulomatous Lymphadenitis 4 cm	Left SCC Tonsil
F-	LN	Granulomatous Lymphadenitis	Lymphoma B cell
F-	LN	Branchial cyst vs well diff SCC	SCC
F-	LN	Reactive Lymph node	Hodgkin L
F-	LN	Reactive Lymph node	Hodgkin L
F-	LN	Normal Tissue neck area II	SCC Tonsil
F-	Neck	Thyroglossal cyst	Papillary Carcinoma
F-	Neck	Haemorrhagic cyst	Mx SCC
F-	Parotid	Pleomorphic Adenoma	SCC
F+	LN	Non Hodgkin L	Florid Reactive Hyperplasia

Discussion:

Patients who needed a second FNA on the basis of inadequacy of the first one may experiment different levels of delay regarding clinical and logistic considerations.

Possibility to develop a ONE STOP HEAD AND NECK CANCER CLINIC in the future as in other Hospitals could reduce need for second FNA.