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CASE REPORT

Nonrecurrent Laryngeal Nerve: An Indian Documentation

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ABSTRACT

Purpose of the study: Aimed to highlight a rare anatomical variation of right recurrent laryngeal nerve and a brief review of literature.

Nonrecurrent laryngeal nerve is a rare anatomical variation with an incidence of 0.5 to 0.7% in thyroid surgery. It is difficult to identify this variation preoperatively either by imaging or by signs and symptoms, unless a vascular anomaly is suspected.

This study aims to underline the necessity of recognizing the possibility of non-RLN and also to follow a systematic dissection of recurrent laryngeal nerve during thyroid surgeries, to prevent intraoperative nerve damage.

Keywords: Recurrent laryngeal nerve, Thyroidectomy, Aberrant subclavian artery.

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INTRODUCTION

Identification and preservation of recurrent laryngeal nerve is of paramount importance in thyroid surgery. While the position of left recurrent laryngeal nerve (RLN) is more or less constant, one can encounter a nonrecurrent laryngeal nerve (NRLN) on the right in about (0.5-0.7%) of cases.[1] However, in spite of its association with congenital vascular anomalies, short of extensive preoperative imaging, it is impossible to identify a NRLN.

Therefore, it is imperative that we have a standard surgical practice to identify RLN. This will prevent an inadvertent damage to an eventual NRLN. Here, we report one such case of a right NRLN and a brief review of literature.

CASE REPORT

A 35-year-old woman presented to our department with complaints of right sided thyroid nodule and multiple cervical lymph node swelling on the same side. She had no complaints of dysphagia. Fine needle aspiration cytology was consistent with cystic papillary carcinoma thyroid. She underwent total thyroidectomy with right modified radical neck dissection. During surgery, the fascia between common carotid artery and thyroid gland was separated using blunt

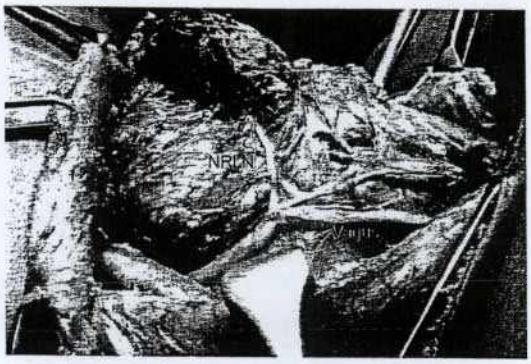
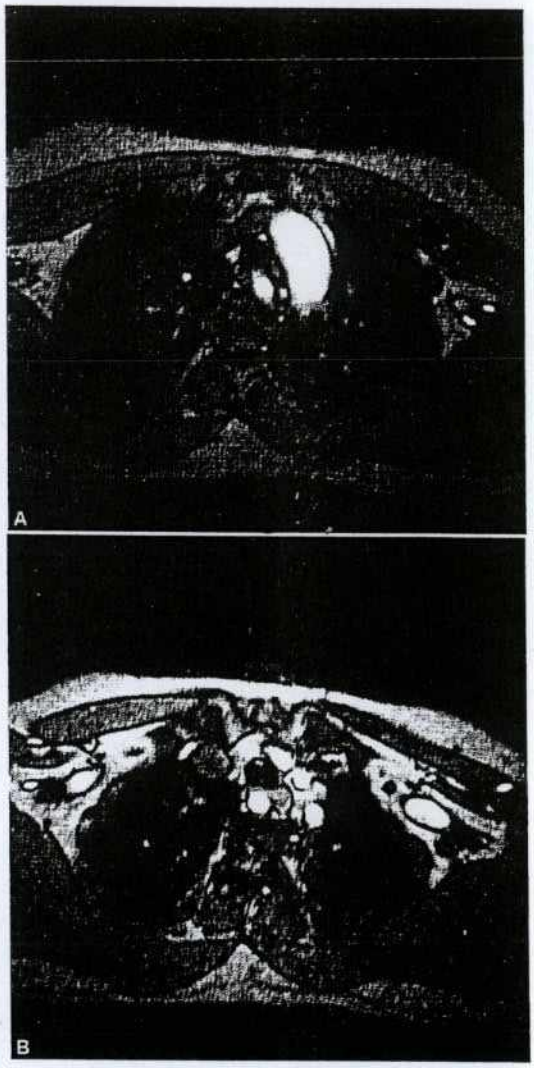


Fig. 1: Type 1B right NRLN arising directly from vagus



Figs 2A and B: MR angiography, showing right aberrant subclavian artery, arising as the fourth branch of aorta and traversing retroesophageal

Table 8: Stages of chronic kidney disease based on eGFR.

Stage	eGFR (ml/min)	Description	Frequent complications	Testing frequency	Prevalence (%)
1.	90-99	Kidney damage with normal GFR	Hypertension	Yearly	3.3
2	60-89	Kidney damage with mild CKD	Hypertension (Parathyroid hormone elevation)	Yearly	3.0
3	30-59	Moderate CKD	Hypertension, Changed in Calcium and phosphate metabolism, renal anaemia, left ventricular hypertrophy	6 months	4.3
4	15-29	Severe CKD	As above, plus hyperkalaemia	3 months; 6 monthly once stable	0.2
5.	<15	Kidney failure	All above plus salt and water retention causing apparent heart failure, anorexia, vomiting, pruritis	3 months	0.2

than 18yrs, pregnant women and elderly persons aged more than 75years.

3. eGFR is not useful in assessing acute renal failure.

REFERENCES

1. Paul D Giles. Clinical practice guidelines to define chronic kidney disease: evaluation, classification and stratification. Am J of Kidney Disease 2002; 39:S1-S266.

2. Delaney MP, Price PC, Newman JD, Lamb E. In: Burtis CA,Ashwood ER, and Bruns DA,eds. Teitz text book of clinical chemistry and molecular diagnostics, 4th ed. New Delhi: Elsevier co. 2006; 1683.

3. Bargman JM, Skorecki K. Chronic kidney disease. In: Kasper DL, Fauci AS, Longo DL, Braunwald E, Hauser SL, Jameson JL, editors. Harrison's principles of internal medicine, 18th edition. United state of America: Mc Graw Hill; 2008.2308-2309.

4. Laurence E. Carroll. The Stages of Chronic Kidney Disease and the Estimated GlomerularFiltration Rate .The Journal of Lancaster General Hospital. 2006 ; 1: 2

5. Fawaz A, Badr KF. Measuring filtration function in clinical practice. Curr Opin Nephrol Hypertens 2006; 15: 643-647.

6. Toto RD. Conventional measurement of renal function utilizing serum creatinine, creatinine clearance, inulin and para-aminohippuric acid clearance. Curr Opin Nephrol Hypertens 1995; 4:505509.

7. Hilbrands LB, Artz MA, Wetzels JF, Koene

RA. Cimetidine improves the reliability of creatinine as a marker of glomerular filtration. Kidney Int 1991; 40:11711176.

8. Hottelart C, El Esper N, Rose F, Achard JM, Fournier A. Fenofibrate increases creatininemia by increasing metabolic production of creatinine. Nephron 2002; 92:536541.

9. Cockcroft DW, Gault MH. Prediction of creatinine clearance from serum creatinine. Nephron 1976; 16:3141.

10. Levey AS, Stevens LA, Schmid CH. CKD-EPI (Chronic Kidney Disease Epidemiology Collaboration). A new equationto estimate glomerular filtration rate. Ann Intern Med 2009;150: 604612.

11. Glassock RJ, Winearls C. Screening for CKD with eGFR: doubts and dangers. Clin J Am Soc Nephrol 2008; 3:15631568.

12. MacGregor MS, Boag DE. Chronic kidney disease: Evolving strategies for detection and management of impaired renal function. Int J of Medicine 2006; 99(6):365-375.

13. Wieneke M, Diana CG, Marion V, Elise GE, Friedo WD, Raymond TK..Cockcroft-Gault,MDRD, and new CKD-EPI Formulas in relation to GFR,age and body size.Clinical Journal of the American society of Nephrology 2010;5(6):1003-1009.

14. Poggio ED, Wang X, Greene T, Van Lente F, Hall PM: Performance of the modification of diet in renal disease and Cockcroft-Gault equations in the estimation of GFR in health and in chronic kidney disease. J Am Soc Nephrol 2005; 16:45966.

15. Kheterpal, Sachin ,Tremper, Kevin KUse of Cockroft and Gault Formula for Estimation of Creatinine Clearance.Anesthesiology: 2008; 109(6): 1141-1142. Rostoker G, Andrivet P, Pham I,Griuncelli M, Adnot s. A modified Cockcroft-Gault formula taking into account the body surface area gives a more accurate estimation of theglomerular filtration rate.J Nephrol 2007; 20(5): 576 585.

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