Bangladesh J Otorhinolaryngol 2012; 18(2): 145-148

Original Article

Dysphagia: Indian perspective an often overlooked clinical experience

Saurav Sarkar[1], Biswajit Sikdar[2], Sohag Kundu[1]

Abstract:

Purpose: To find-out causes of dysphagia in an Indian population and to assess whether the cases termed globus actually has some underlying cause.

Methods: History elucidation, ENT examination, neurological check up and neuromuscular examination. Barium swallows of esophagus, upper flexible GED scopy, flexible laryngoscopy, X-ray cervical spine. X-ray soft tissue neck lateral view, CXR, CT scan, MRI and diagnostic rigid esophagoscopy.

Results: Hypopharyngeal carcinoma (pyriform fossa) 25% (30) and esophagitis, stricture, caustic injury, webs, 25% (30) commonest cause of dysphagia in India. Osteoarthropathy, Diffuse idiopathic skeletal hyperostosis (DISH) 2.5% (2) are significant cause of dysphagia though not common. No Patient was found to have globus hystericus.

Conclusion: Osteodystrophy though not a common cause of dysphagia, but should be kept in mind when other apparent causes of it are negated and before diagnosing it as globus hystericus as in our study none of the patients were found to have globus.

Key words: *DISH; Dysphagia; Indian population; distribution; osteophytes*

Introduction:

Dysphagia in ENT Out Patient Department setting is a regular scenario with an average 2-3 patients turning out per day in the OPD chamber among a motley crowd of 50 patients. What seems initially as globus or a pharyngo-esophageal cause may have other rare events lurking in the background. We are set to embark on a clinical detour of the experiences, as a statistical data on dysphagia causes which are lacking in Indian perspective, and collate the few pearls that we ignore, commonly, the cervical osteoarthropathic giant osteophytes causing dysphagia

The various dysphagia patients that turn to OPD have been standardized with the following definition of dysphagia which is the difficulty in swallowing be it painful or painless. Whatever the cause whether painful or its absence does not count so long we encounter the dysphagia which may be to solids, liquids or both; the stage of initiation, the oropharyngeal or oral causes are not taken

1. Lecturer/Clinical Tutor, Department of ENT - Head & Neck Surgery, Calcutta Medical College, Kolkata, West Bengal, India,
2. Associate Professor, Department of ENT – Head & Neck Surgery, Calcutta Medical College, Kolkata, West Bengal, India,

Address of Corresponding: Dr. Saurav Sarkar, Lecturer, Department of ENT - Head & Neck Surgery, Calcutta Medical College, Kolkata, West Bengal, India, E-mail: doc.sauravsarkar @gmail.com

into account; so we are left with the esophageal and hypopharyngeal causes.

The aim of the study are to find-out causes of dysphagia in an Indian population and to assess whether the cases termed globus actually has some underlying cause

Methods:

A prospective study was done on the cases that turned up in ENT out Patient Department of Medical College Hospital, Kolkata, with dysphagia over a period of one year from January 2011 – December 2011.

Apart from the standard history taking, general survey, and ENT examination (of the pharynx, larynx, head and neck); neurological check up and neuromuscular examination were carried out and emphasized where need arose.

History elucidation included those of sore throat, respiratory distress, halitosis, aspiration, hematemesis, hemoptysis, heart burn, chemical burn, trauma to neck, cervical pain, difficulty in neck movements, attacks of stroke, and neurological symptoms like generalized weakness of muscles, atrophy and dysarthria, connective tissue disorder, weakness, weight loss, and anorexia.

Investigations included barium swallow of esophagus, upper flexible GED scopy, flexible laryngoscopy, X-ray cervical spine. X-ray soft tissue neck lateral view, CXR, CT scan, MRI and diagnostic rigid esophagoscopy. Manometry and multi channel pH monitoring in occasional instances were done, apart from routine investigations. Videofluroscopic study was not done in our setting.

Results:

Among the 120 cases of dysphagia that we followed over a span of one year in Out Patient Department of ENT, in Medical College Hospital, Kolkata on 2 days a week the cause distribution came out to be:

Hypopharyngeal carcinoma (pyriform fossa) 25% (30), supraglottic carcinoma in transitional zone 20% (24), esophageal neoplasm, bronchial neoplasm 10% (12), esophagitis, stricture, caustic injury, webs 25% (30), esophageal motility disorders-achalasia, diffuse esophageal spasm, zenker's diverticulum 10% (12), neuromuscular-bulbar palsy (MND), nasopharyngeal carcinoma, stroke 5% (6), scleroderma 2.5% (4) and osteoarthropathy 2.5% (2) (Figure 1& 2)

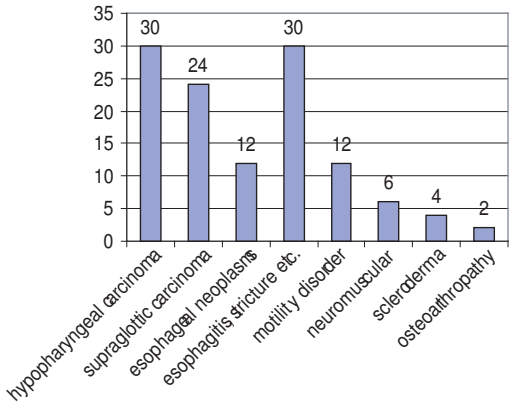

Figure 1: *The causes of dysphagia in patients in the study period.*

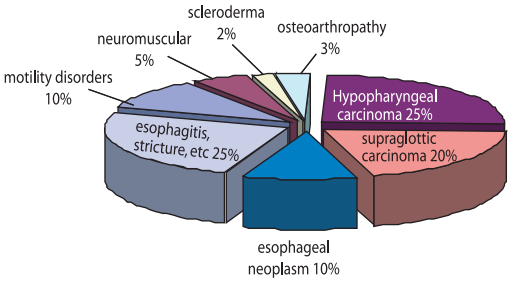

Figure 2: *Dysphagia causes in percentage distribution.*

The predominance of carcinoma in the distribution is due to draining bias in the referral system and the peculiarities are more of skewed distribution. The small incidence of neuromusculoskeletal connective tissue

disorder may be due to the patient presentation in the medicine/ neuromedicine departments. The scleroderma patients and those of motor neuron disorders are more concerned with the other symptoms of ambulatory problems and aspiration problems than being concerned with dysphagia which is managed with a simple Ryle's nasogastric feeding tube.

Regarding 2 cases of osteoarthropathy we are having special mentioning. The first case is a 60-year-old male patient who presented with gradual onset painless dysphagia to solids for last six months with pain in cervical region. ENT examination revealed posterior hypopharyngeal submucosal hard swelling with stenosis of cricopharyngeal inlet. The history and clinical examination did not suggest any laryngo-pharyngo esophageal malignancy, tumors of neck or mediastinum or any vascular malformations or rings, or neuromuscular disorder or connective tissue disorders. There was no history of trauma to neck, caustic poisoning or any history of esophagitis. Flexible Upper GI endoscopy did not reveal any abnormality except for the pathology described earlier (Figure 3).

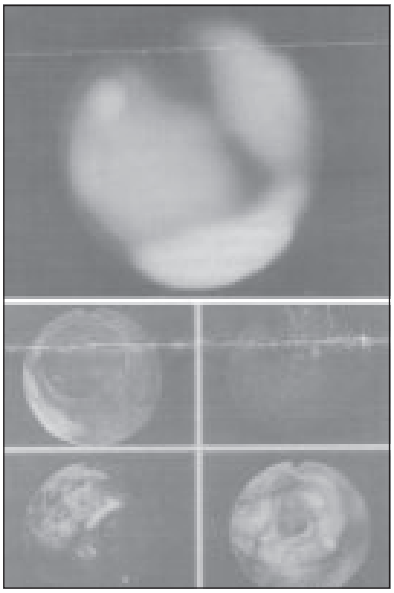

Figure 3: *Endoscopic view of the DISH osteophytes in the posterior hypopharynx.*

The movement of the neck was restricted as in spondylosis but there was no radiating pain or weakness of arms. X-ray neck revealed large bridging osteophytes at the level of C4-C6. Barium swallow X-ray of oesophagus delineated filling defects opposite lower cervical vertebral spines. CT scan of neck, thorax and lumbar region revealed multiple patches of spanning anterior inter-vertebral bony lamellar bridges with markedly enlarged osteophytes from anterior vertebral bodies with the largest being at C6 and C7. The symptoms correspond to Diffuse Idiopathic Skeletal Hyperplastic Syndrome of DISH. The patient did not permit surgical management of excision of the osteophytes by lateral/ anterior neck approach and was managed by liquid diet, NSAID, and Physical Therapy management. The other patient a 72-year-old female presented with dysphagia with associated odynophagia. She presented with isolated osteophyte enlargements of C4 - C7 causing a bulge near posterior wall of cricopharynx and osteoarthritic changes of inter vertebral joints with narrowing of disc spaces. She too was managed conservatively and because of absence of thoraco-lumbar region she didn't fall under DISH/ Forestier syndrome.

Discussion:

After an intensive search in internet no reference was found in relation to incidence of dysphagia due to various causes amongst Indian population or the distribution in general population. This is an attempt to bring to fore the distribution of dysphagia causes in Eastern Indian population that visit the ENT department in a tertiary set up like that of Medical College, Kolkata and hence is worth publishing.

Records of cervical osteophyte formation that leads to dysphagia were described by Zahu 1904, Mosher 1926, Forestier 1950, Hilding

and Tachdijan 1960, Resnick and Niwayama 1976-78, Gamache and Lambert 1981[1-8]. Forestier and Rotes described for the first time an ankylosing disease of elderly in the spine causing its non inflammatory stiffening due to extensive bone formation sometimes leading complete bridging of adjacent inter-vertebral spaces - Diffuse Idiopathic Skeletal Hyperplastic Syndrome of DISH. The cause is obscure with conjectures of hyper-vitaminosis A, fluorosis or association with Diabetes mellitus or obesity. Other causes of cervical osteophytes include spinal osteoarthritis, herniated nucleus pulposus, congenital bone bar, inter-vertebral disc degeneration or following trauma or infection. The cervical osteophytes which cause maximum dysphagia are at C6 level – the site of attachment of cricopharynx of esophagus. Disc degeneration with narrowing of the inter-vertebral spaces, osteoarthritis or spondylosis with sclerosis and hypertrophic spurring of the articular surface occurs at the site of greatest vertebral movements – between C5- C6 and C6-C7. The value of surgery is not always clear and in majority cases a stiff cervical collar and NSAID therapy results in successful control of symptoms.

Many so called globus patients must be thoroughly investigated especially with X-Ray of cervical spine so as to rule out the rare but obvious cause of cervical osteoarthropathy which are often overlooked by an ENT surgeon. So the opinion of Physical Medicine Specialist is of great value in this regard.

Conclusion:

The study is an attempt at finding out the distribution of cases in Indian scenario has not been attempted previously. Also we came across 2 rare cases of cervical osteoarthropathy causing dysphagia and managed successfully by Physical Medicine and conservative medication; with a message of the importance of diagnosing an often ignored/ overlooked common problem of cervical osteoarthropathy in dysphagia.

References:

1. Forestier J and Rotes – Querol J. Senile ankylosing hyperostosis of the spine. Annals of the Rheumatic Disease 1950; 9: 321-330.
2. Gamache FW and Voorhies RM. Hypertrophic cervical osteophytes causing dysphagia, A review. Journal of Neurosurgery 1980; 53: 338-343.
3. Hilding DA, Tachdjian MD. Dysphagia and hypertrophic spurring of the cervical spine. New Eng J Med 1960; 263: 11-14.
4. Lambert JR, Tepperman PS, Jimenez J, Newman A. Cervical spine disease and dysphagia. Four new cases and review of the literature. American Journal of Gastroenterology 1981; 76: 35-40.
5. Mosher HP. Exostosis of cervical vertebrae as cause for difficulty in swallowing. Laryngoscope 1926; 36: 181.
6. Resnick D, Shaul SR, Robbins JM. Diffuse idiopathic skeletal hyperostosis (DISH) Forestier's disease with extraspinal manifestations. Radiology 1975; 115: 513-524.
7. Resnick D, Niwayama G. Radiologic and Pathologic features of spinal involvement in Diffuse idiopathic skeletal hyperostosis (DISH). Radiology 1976; 199: 559- 568.
8. Resnick D, Shapiro RF, Wiesner KB, Niwayama G, Utsenger PD, Shaul SR. Idiopathic skeletal hyperostosis (DISH). (Ankylosis of Forestier and Rotes-Querol) Seminars in Arthritis and Rheumatism 1978; 7: 153-187.