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RESEARCH ARTICLE

MEDIAN PALATINE CYST: A CASE REPORT

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Abstract

The median palatine cyst is a non odontogenic cyst. It is a rarely found cyst. It is believed to develop from epithelial remnants trapped during the fusion of the palatal shelves during embryonic development, particularly around the sixth week of fetal development. The present study describes the diagnosis and surgical management of Median Palatine Cyst seen in our Department of Oral and Maxillofacial Surgery, Dr. R. Ahmed Dental College and Hospital. The wound healed well and the cyst did not recur after 6month follow up.

Introduction:-

Non-odontogenic fissural cysts arise from epithelial remnants of embryonic ducts left behind in the developmental fusion lines during facial development. Generally three subtypes of non-odontogenic fissural cysts are described: nasoalveolar, nasopalatine and median palatal ones. All these cysts are usually asymptomatic and are often found incidentally during routine radiological examinations.

The most common clinical presentation is painless swelling. Rarely infection can occur and the cyst can become painful. The preferred treatment for large and symptomatic lesions is enucleation.

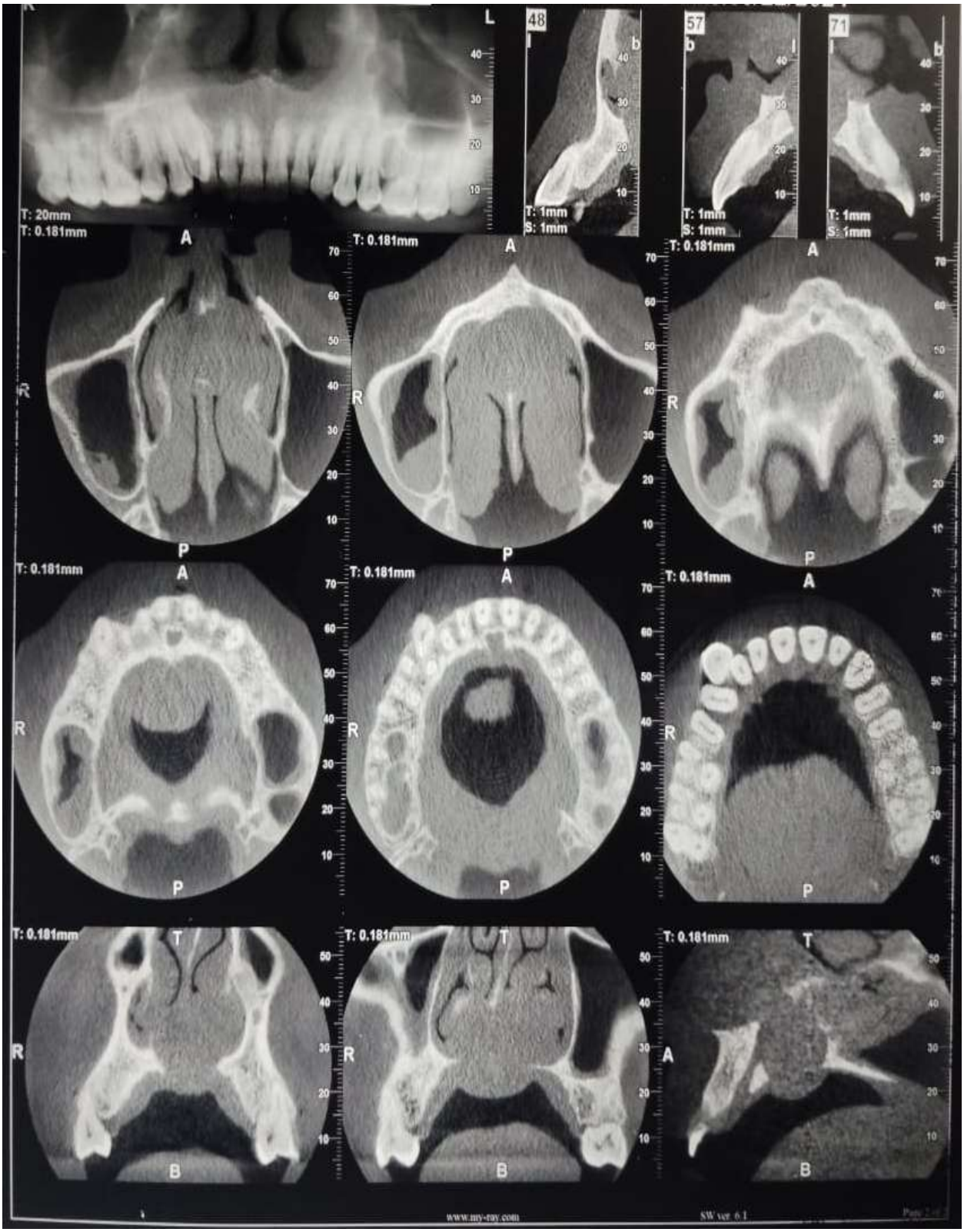
Case Report:

A 40year old male patient has come to our department with a complaint of palatal swelling associated with no pain, since last 3-4months, with a habit of cigarette smoking(1-2 packet daily).On examination a solitary well-defined swelling is found in the mid palatal region.

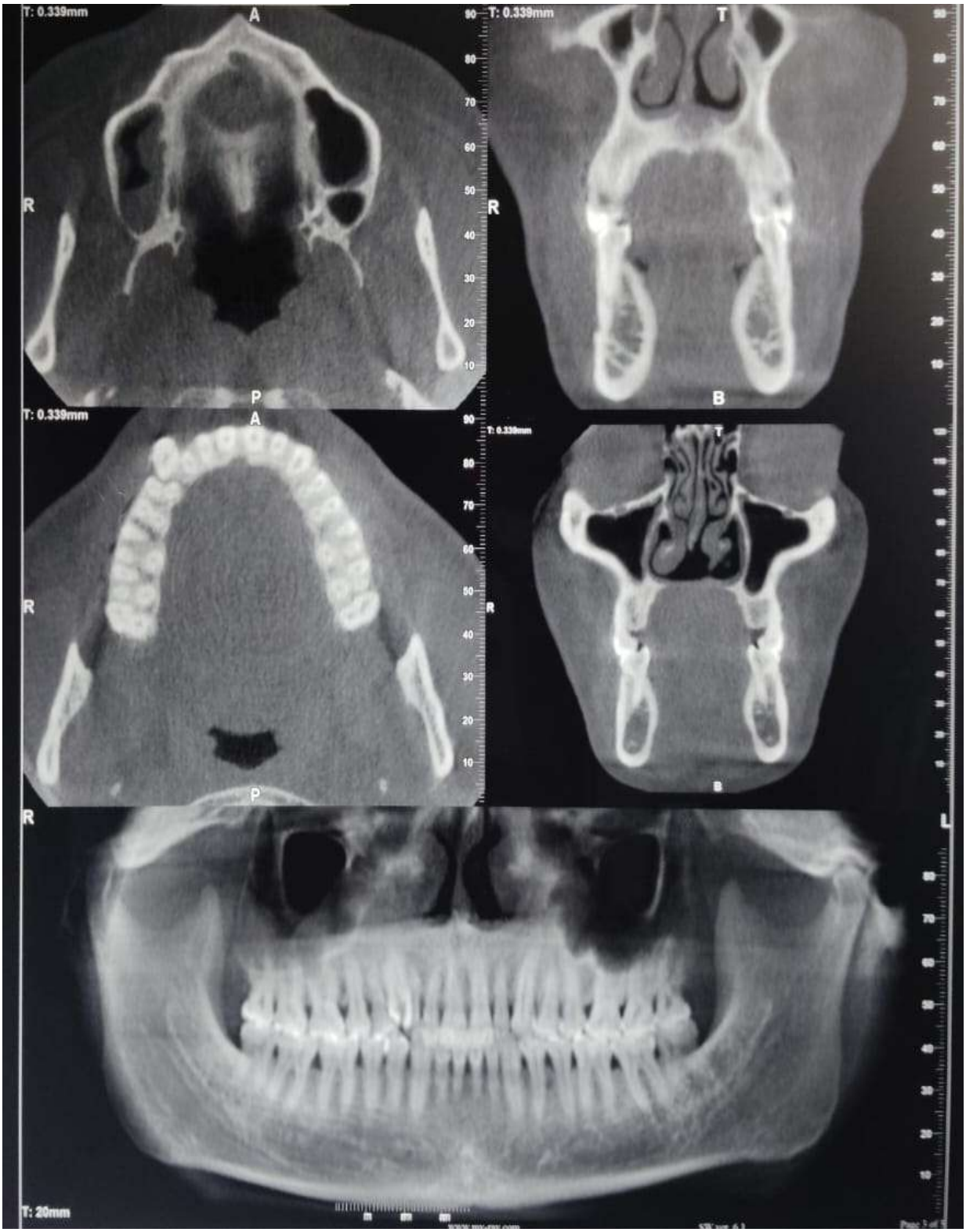
It is ovoid in shape with approximately 2x2cm in size. Color of the overlying mucosa is normal. Non tender on palpation, firm in consistency.Aspiration of the fluid reveals straw colored fluid, which is suggestive of a cystic lesion.

Radiographically, CBCT reveals well circumscribed radiolucency in the mid palatal region opposite to the bicuspid and molar area, with sclerotic borders. The palatal bone loss suggests the involvement of the floor of the nasal cavity.

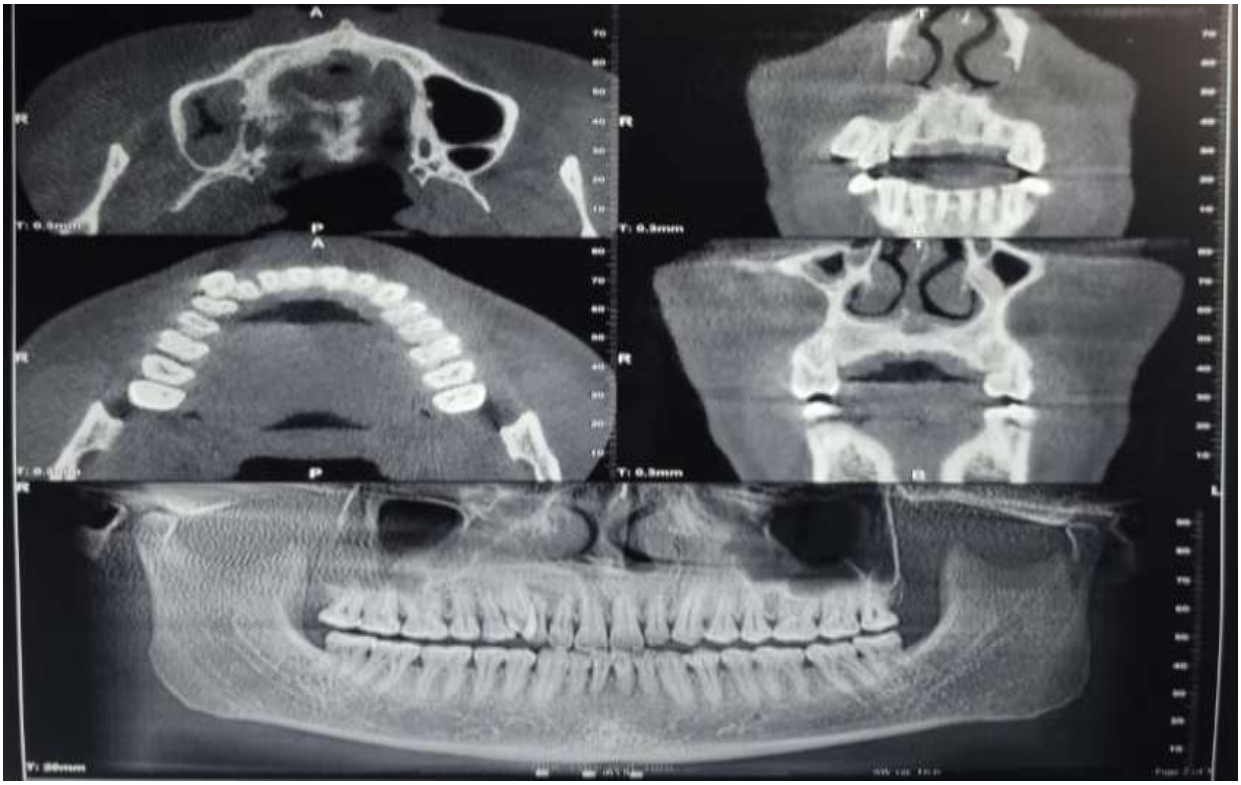
Differential diagnosis includes nasopalatine duct cyst, palatine anterior maxillary cyst, and the other cysts arising from the incisive canal.

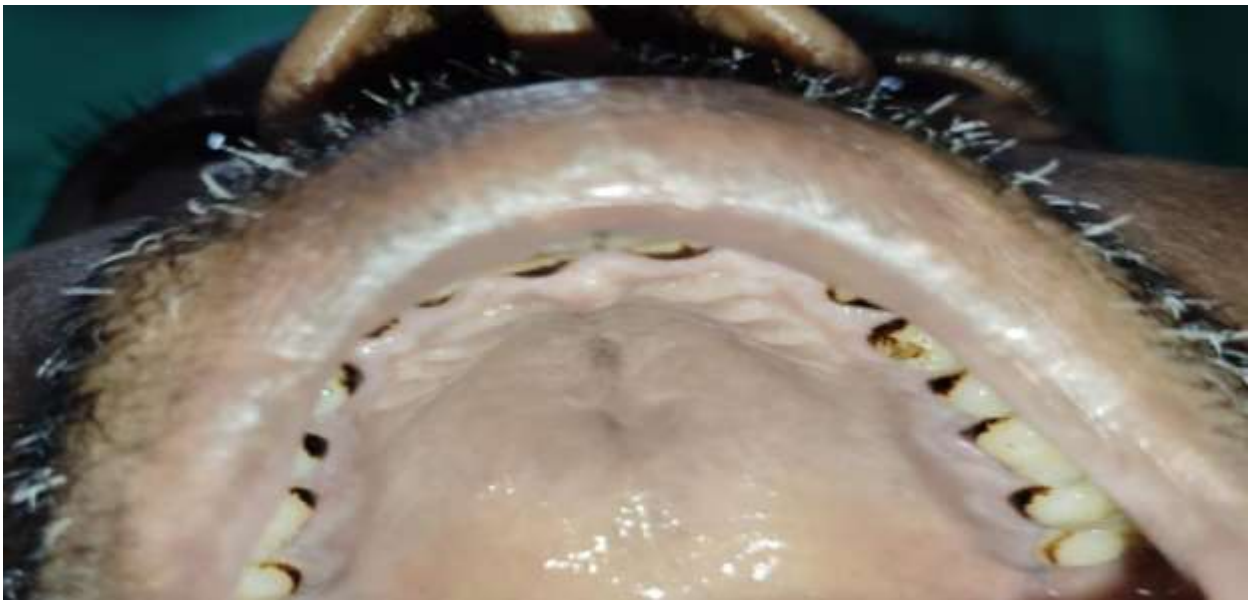


(PRE OPERATIVE RADIOGRAPH)



POST OPERATIVE RADIOGRAPH (AFTER 3 MONTHS)





POST OPERATIVE RADIOGRAPH (AFTER 6 MONTHS)

Post Operative Photograph (After 6 Months):-

Patient has been prepared for surgical procedure under local anesthesia and consent has been taken. Pre operatively cover plate has been fabricated. Enucleation of the cyst was done under local anesthesia. Lesion was approached by giving a vertical incision. Dissection done to separate the cystic lining from the palatal mucosa. Complete enucleation was done. Primary closure was done.

Cover plate has been placed. Post operatively nasal bleeding occurs. Merocel nasal pack has been placed. Follow up done after 3days. No evidence of nasal bleeding following the removal of nasal pack. Suture removal done after 7days.

Histopathological report suggestive of MEDIAN PALATINE CYST. The lining usually consists stratified squamous epithelium overlying a relatively dense fibrous connective tissue which is showing chronic inflammatory cell infiltration. The lining occasionally reported to be lined by pseudostratified ciliated epithelium.

Discussion:-

It is a rare non odontogenic cyst. It is mainly developed from the remaining epithelial embryonic tissue of the palatal bone. The process of its formation is under debate. Initially it was thought that in the 6^{th} embryonic week if the midline of the palatine process does not form ultimately, the residual ectodermal epithelial cells can form cysts. Some scholars proposed that Median palatine cyst is the posterior extension of the nasopalatine duct cyst.

Commonly found in male patient.Location is the mid palatal region of maxilla. In early stage it is asymptomatic. But as it expands it can cause damage to the hard palate and the nasal floor which can cause nasal congestion, pain, swelling of the nose and the numbness of the upper lip will occur, which cause bulging of the nasal floor, upper lip and palate.

Hadi et al. In 2001 published an article describing specific criteria for the diagnosis of midpalatal cyst:

1. Cyst must be present posterior to the palatine papilla
2. Cyst must be grossly symmetrical in the midline of palate
3. Cyst must not have any communication with incisive canal or associated with nonvital tooth
4. Radiographically, it should be round or ovoid
5. And histologically, it should not have hyaline cartilage, large vascular spaces or salivary glands in the cyst wall.

Median palatine cyst is treated by enucleation. The current surgical methods are transoral and transpalatal approach, the labial gingival sulcus approach and the trans nasal floor approach. After enucleation, complete regeneration of the bone will not occur. The defect willbe filled by scar tissue and might lead to oronasal communication. Nasal bleeding may occur post operative. The recurrence rate is low. However in some cases marsupialization is done, which will not allow complete histological evaluation of the cyst, and there may be chances of recurrence.

Conclusion:-

Median palatine cysts are rare non odontogenic cysts. These can be diagnosed by clinical criteria, radiological confirmation and histopathological evaluation. This case typically presented clinical, radiological and histological features of Median palatine cyst.

Reference:-

1.Hadi U, Younes A, Ghosseini S, Tawil A. Median palatine cyst: an unusual presentation of a rare entity. Br J Oral Maxillofac Surg. 2001 Aug;39(4):278-81. Doi: 10.1054/bjom.2001.0620. PMID: 11437424
2.Pindborg JJ, Kramer IRH: WHO Histological Typing of Odontogenic Tumours, Jaw Cysts and Allied Lesions (ed 1). Geneva, Springer-Verlag, 1971
3.rapidisad,langdonjd.mediancystsofthejawsvnotatrueclinical entity. Int J Oral Surg 1982;11:360Y363
4.Rangaswamy S, Singh M, Yumnum R. True median palatal cyst; a rare case report. J Oral maxillofacpathol. 2018;22(2):286. Doi: 10.4103/jomfp.JOMFP_199_17.
5.Gingell JC, Levy BA, depaola LG. Median palatine cyst. J Oral Maxillofac Surg. 1985;43(1):47–51. Doi: 10.1016/s0278-2391(85)80013-6.
6.Kim SW, Seo BF, Baek SO, et al. Large median palatine cyst. J Craniofac Surg. 2012;23(4):e288-90–e290. Doi: 10.1097/SCS.0b013e31824e5c33.
7. Manzon S, Graffeo M, Philbert R. Median palatal cyst: case report and review of literature. J Oral Maxillofac Surg. 2009;67(4):926–930. Doi: 10.1016/j.joms.2008.06.103.
8. Cinberg JZ, Solomon MP. Median palatal cyst. A reminder of palate fusion. Ann otolrhinollaryngol. 1979 May-Jun;88(3Pt1):377–81. Doi
9. Hatziotis J. Median palatine cyst: Report of case. J Oral Surg. 1966 Jul;24(4):343–6.10. Donnelly JC, Koudelka BM, Hartwell GR. Median palatal cyst. J Endod. 1986 Nov;12(11):549–9. Doi: 10.1016/S0099-)