TUMOUR MARKERS IN FLUIDS

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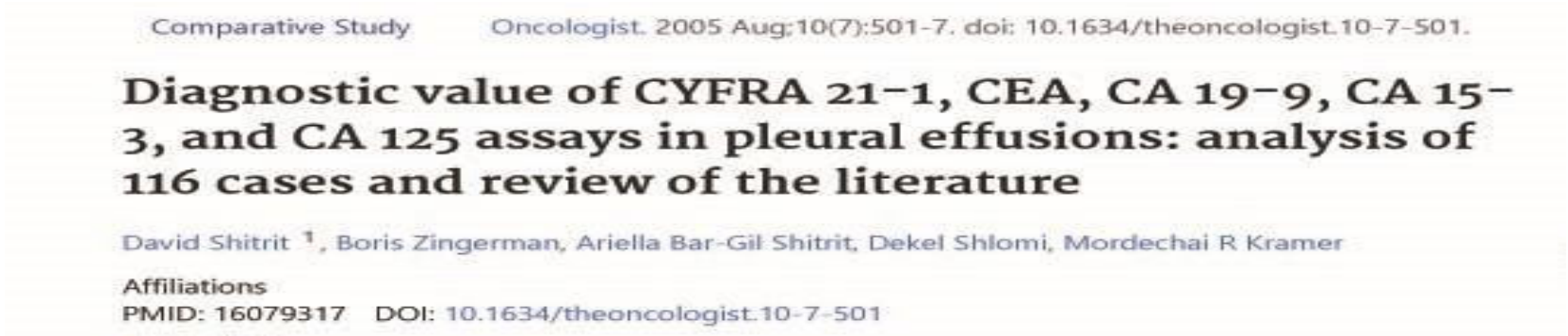
- Not routinely asked
- Usually an academic study
- Fast gaining importance
- To assay the marker both in serum & fluid - debatable
- ??? For Vs Against
- Literature review maximum for pleural fluid followed by ascitic.



Comparative Study Oncologist. 2005 Aug;10(7):501-7. doi: 10.1634/theoncologist.10-7-501.

Diagnostic value of CYFRA 21-1, CEA, CA 19-9, CA 15-3, and CA 125 assays in pleural effusions: analysis of 116 cases and review of the literature

David Shitrit [1], Boris Zingerman, Ariella Bar-Gil Shitrit, Dekel Shlomi, Mordechai R Kramer

Affiliations

PMID: 16079317 DOI: 10.1634/theoncologist.10-7-501

- Helps in establishing diagnosis of pleural malignancy
- ? Does it offer precise diagnostic value
- Study revealed elevation of the markers in malignant group
- Literature also states CEA, CA 15-3 and CYFRA 21-1 yielded good results
- CEA was more significantly elevated and CA 15-3 and CYFRA could be alternative options.
- Hence patients with unexplained pleural effusion and negative cytology should be assayed for fluid markers to be followed by other invasive procedures.

J Cancer Res Ther. Jan-Mar 2016;12(1):355-8. doi: 10.4103/0973-1482.162111.

Diagnostic value of bronchoalveolar lavage fluid and serum tumor markers for lung cancer

Hongmin Wang, Xiaohong Zhang [1], Xinkui Liu, Kangdong Liu, Yuexia Li, Haijiang Xu

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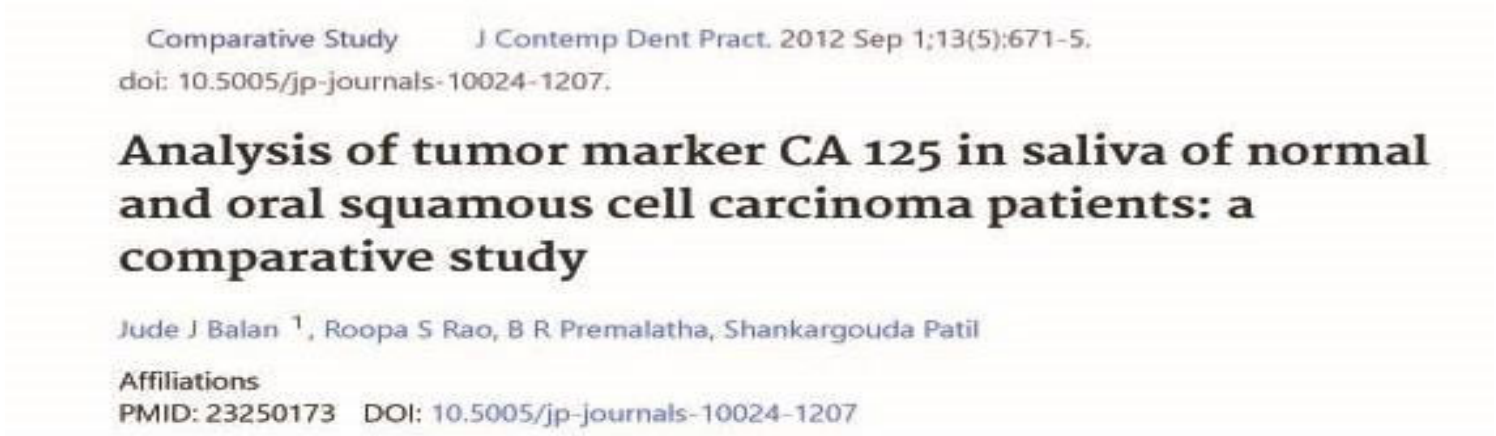
PMID: 27072263 DOI: 10.4103/0973-1482.162111

- Study groups included benign and lung cancer patients
- Study types included squamous cell carcinoma, adenocarcinoma and small cell undifferentiated carcinoma.
- Markers studied were CEA, (NSE) Neuron Specific Enolase and Cytokeratin 19 fragment (CYFRA 21-1)
- NSE high in small cell lung cancer
- CYFRA 21 in squamous cell carcinoma and CEA elevation seen in adenocarcinoma
- It was found that the fluid detection of the markers was better than serum detection and would be advisable to include in clinical practice



Comparative Study J Contemp Dent Pract. 2012 Sep 1;13(5):671-5.
doi: 10.5005/jp-journals-10024-1207.

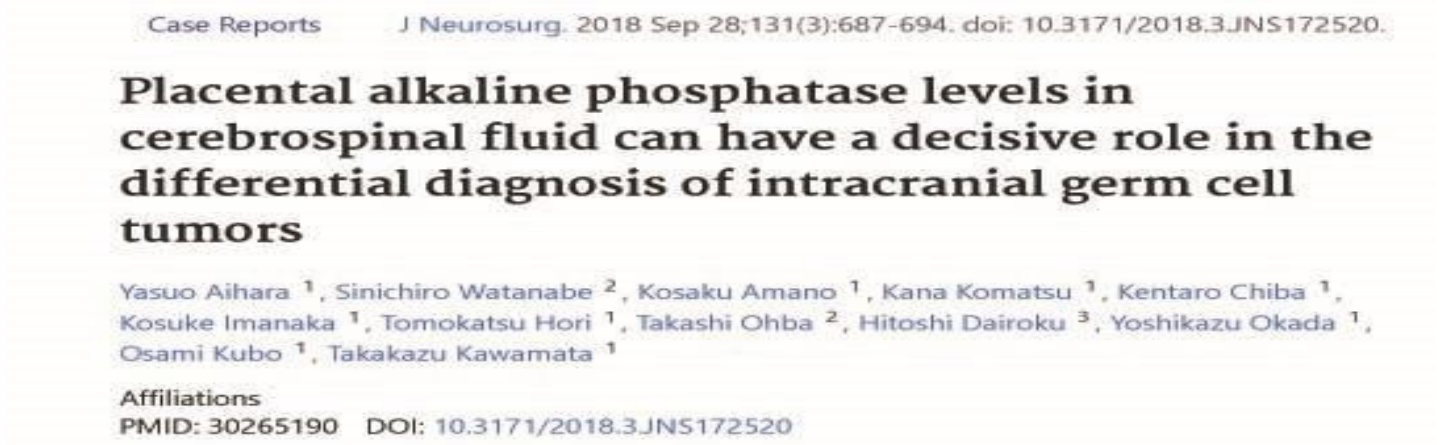
Analysis of tumor marker CA 125 in saliva of normal and oral squamous cell carcinoma patients: a comparative study

Jude J Balan [1], Roopa S Rao, B R Premalatha, Shankargouda Patil

Affiliations

PMID: 23250173 DOI: 10.5005/jp-journals-10024-1207

- Mortality and morbidity of oral squamous cell carcinoma (OSCC) is high
- Saliva markers are said to be an alternative with advantage than blood
- CA 125 significantly increased in the study and correlated with staging
- CA 125 – in saliva/blood enhances its role as a tumour marker
- Seen in epithelial cancers like – ovarian, breast and oral
- Salivary markers is adjunctive diagnostic tool, which may prevent invasive procedures



Case Reports J Neurosurg. 2018 Sep 28;131(3):687-694. doi: 10.3171/2018.3.JNS172520.

Placental alkaline phosphatase levels in cerebrospinal fluid can have a decisive role in the differential diagnosis of intracranial germ cell tumors

Yasuo Aihara [1], Sinichiro Watanabe [2], Kosaku Amano [1], Kana Komatsu [1], Kentaro Chiba [1], Kosuke Imanaka [1], Tomokatsu Hori [1], Takashi Ohba [2], Hitoshi Dairoku [3], Yoshikazu Okada [1], Osami Kubo [1], Takakazu Kawamata [1]

Affiliations

PMID: 30265190 DOI: 10.3171/2018.3.JNS172520

- PLAP in CSF has a very high diagnostic value for intracranial germ cell tumours (GCT)
- A 10 years study of 74 patients with GCT in CSF and histological samples
- As small tumour samples do not reflect the malignancy appropriately,
- markers such as Alphafeto protein or HCG are useful in absence of tumour biopsy
- CSF-PLAP more sensitive and reliable than serum
- PLAP in CSF showed high correlation with histopathological diagnosis

Comparative Study J Int Med Res. Jan-Feb 2009;37(1):79-86.
doi: 10.1177/147323000903700109.

Correlation of tumour markers in ascitic fluid and serum: are measurements of ascitic tumour markers a futile attempt?

Y Tuzun [1], Y Celik, K Bayan, S Yilmaz, M Dursun, F Canoruc

Affiliations
PMID: 19215676 DOI: 10.1177/147323000903700109

- Markers analysis in serum and ascitic fluid were significant in malignant groups
- CEA, CA 125, CA 19-9, CA 72.4, CA 15.3, AFP and CYFRA
- Study concluded that tumour markers in the ascitic fluid did not add any diagnostic advantages over measuring them in serum

- Another study using CA 125, CEA and CA 19-9 levels and DNA ploidy analysis for peritoneal carcinomatosis (PC) in GI and ovarian malignancies were found to be valuable markers for diagnosis
- CEA in fluid was said to have predictive value for PC and prognostic value in colorectal cancer
- Some of the markers did not correspond to tumour stage and histological differentiation or metastasis

Thank you