



Abstracts of Posters

1

Study of the epidemiology and molecular etiology of thalassemia in Vidarbha region

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Background: Thalassemia is a group of genetic disorders characterized by quantitative defects in globin chain synthesis with subsequent absence or decrease of haemoglobin production leading to variable degrees of microcytic anaemia. It is commonly found in people of Mediterranean, African, Middle Eastern, Indian, Chinese, or Southeast Asian origin. Beta-thalassaemia is an autosomal recessive single gene disorder characterized by reduced (β^+) or (β^0). Beta globin chain synthesis leading to reduced haemoglobin A (HbA) synthesis. By the advance, PCR based DNA diagnostic techniques; it is now possible to offer diagnosis of thalassemia using extracted blood DNA.

Aim and objective: This study was done with an aim to evaluate the epidemiology and molecular etiology of thalassemia in Vidarbha region.

Materials and methods: 30 sample were collected from thalassemia patients for DNA was extracted from peripheral blood lymphocytes of the patient using Spin column method of blood DNA extraction kit (Vivantis™ GF-1 Blood DNA Extraction Kit). The DNA thus obtained then it was processed by a qualitative conventional PCR reaction to detect the amplification of 4 different genes (4 mutations), using 7 specific primers followed by agarose gel electrophoresis gel electrophoresis of the amplicons and visualized by ethidium bromide. We also collect data regarding the onset of diseases along with some socioeconomic questionnaire.

Result: 30 blood samples were collected from β -thalassemia carriers (minor) from Vidarbha region. Out of four common β -thalassemia mutations, IVS 1-nt 5(G-C), IVS 1-nt 1(G-T), Co 8/9 (+G) and Co 41/42 (-CTT) were found in random population of Vidarbha region, in 43%, 23%, 17% and 10% respectively.

Conclusion: This observations might help in forming β -thalassemia database of the region which may useful for genetic counseling and prenatal diagnosis.

Conflicts of interest

The authors have none to declare.

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2

Study of micronuclei of peripheral leucocytes in Kharrah, gutkha panmasala chewers and tobacco product user of Vidarbha region of central India

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Introduction: Tobacco and its product have accepted as important etiologic agents in oral cancer. Tobacco usage in any form is associated with etiology of many diseases for many decades and any approach aimed at detection of population sub-group at increased risk should be considered a high priority task. The peripheral blood cells were known to exhibit changes in cancer of various organs.

Aim: To quantify the micronuclei in peripheral blood leukocytes of gutkha panmasala chewers and tobacco product user of Vidarbha region of central India.

Materials and method: Healthy tobacco chewers ($n=60$) and healthy non-chewers as controls ($n=60$) with 30–50 years were selected. A thin blood smears were prepared. Slides were air-dried for 30 min followed by fixation using cold 3:1 methanol and acetic acid solution for 10–15 min, washed twice in PBS (phosphate buffer solution) and stained immediately in 5% Geimsa solution and dried on a hot plate for 5 min and observed under microscope. A minimum of 1000 cells from each individual was screened for calculating frequency of nucleated cells (MNC). The identification of micronucleus was based on the criteria proposed Sarto et al. (20).

Result: The micronuclei levels in patients with tobacco habits were compared with that of the control group and results were found to be statistically significant. The mean micronuclei level in peripheral blood leukocytes between tobacco habituated patients with normal mucosa and oral cancer patients was found to be statistically significant. Micronuclei can differentiate higher tobacco exposure in chewers than chromosomal aberration.

Conclusion: In conclusion, Micronuclei test is most primitive and simple indicator for genotoxicity damage than chromosomal

aberration and increased micronuclei frequency in the grossly normal appearing oral mucosa of high risk tobacco chewers patients.

Conflicts of interest

The authors have none to declare.

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3

Study of DNA damage in non-targeted chemosensitive peripheral blood leukocytes in breast cancer by Comet assay



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Background: Chemotherapy is often used to treat breast cancer; drugs can cause various side effects. Single-cell gel electrophoresis assay or comet assay is a sensitive and rapid method for DNA strand breaks in blood leukocytes; it provides information on amount of damage among individual cells.

Aim and objectives: We aimed to analyse the leukocytes DNA damage from non-targeted chemosensitive peripheral blood leukocytes in breast cancer by single cell gel electrophoresis assay.

Methodology: The peripheral blood samples from 60 breast cancer patients (30 before chemotherapy and 30 after chemotherapy) of age group 40–70 yr were collected during 2015–2016 under sterile conditions in heparinised tubes used for Leukocytes culture and 30 healthy non-cancerous females of same age group were taken as control. The informed consent was obtained. The comet assay conducted using three well OxiSelect™ Comet Assay Kit and stained with vista green dye, the slides were analysed by using Olympus® BX 51 fluorescence microscope. The results were statistically analysed.

Result: Mean age of participants were 62.45 ± 3.18 (SD). Obtained comets were analysed by the CometScore 1.5 Software. The Comet score analysis shows that the mean % TDNA (Tail DNA) of comet in leukocytes after chemotherapy is found to be 87.94 ± 11.26 (SD) than 7.16 ± 3.18 (SD) mean % TDNA of comet of before chemotherapy while there is no significant damage in control group.

Conclusion: It can be conclude that the chemotherapy can damage DNA of the non-targeted peripheral blood leukocytes though chemotherapy applied to kill the cancerous cells only.

Conflicts of interest

The authors have none to declare.

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4

Anomalous origin of bilateral testicular arteries – an anatomical and developmental overview



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Anatomical knowledge of morphological anomalies of the gonadal arteries is very important from the clinical point of view. The origin and course of testicular arteries has to be identified carefully during various surgical procedures like renal transplant,

intra abdominal surgeries and even in orthopedic surgery like spine surgery. With the advent of new intra-abdominal therapeutic and diagnostic techniques the anatomy of Testicular arteries has assumed much more importance. In this case report a bilateral aberrant origin of testicular artery from polar artery is reported, carrying significance in operative as well as diagnostic fields.

Conflicts of interest

The authors have none to declare.

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5

Unilateral thyrolinguofacial trunk: an unusual anatomic variant: a case report



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Prior knowledge of arterial supply to the head and neck is of considerable importance; especially for the surgeries involving head and neck region. We are reporting unilateral right side thyrolinguofacial trunk; emerging as a branch from the anterior surface of the right external carotid artery giving of superior thyroid artery and a linguofacial trunk during a routine neck dissection. Linguofacial trunk then divided into lingual and facial artery. Vascular abnormalities can only be detected only during dissection of the cadaver or by the radiologists or accidentally during surgeries leading to haemorrhage.

Conflicts of interest

The authors have none to declare.

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6

Study of lip patterns in Vidarbha region of Maharashtra



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Background: Lips are two fleshy folds surrounding the oral orifice. The pattern of wrinkles on the lips has individual characteristics as fingerprints. Cheiloscopy (quiloscopy) can be defined as a method of identification of a person based on characteristics arrangement of lines appearing on the red part of a lip. It is a forensic investigation technique that deals with identification of human based on lip traces. Present study is aims to find out lip pattern common in Vidarbha region.

Materials and methods: Lip prints of 222 randomly selected subjects were obtained using dark coloured lipsticks, and cellophane tape. Lip prints were analysed using magnifying lens and classified according to the Yasuo Tsuchihashi classification.

Result: The examination of lip print patterns revealed that no two lip prints matched with each other, thus establishing the uniqueness of the lip prints. We have examined total of 444 lips in six different compartments, among these 152 were females and 70 were males. The most predominant pattern in the entire study population was Type II. In females, Type II lip pattern was most