

## Lip Facsimilia Difference among the Students of Rai Medical College Sargodha

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### ABSTRACT

**Aim:** To appraise the pattern of lip wrinkles and cracks modifications among the 3<sup>rd</sup> year student of Rai Medical College.

**Study Model:** Observational Descriptive

**Place and Term of study:** The study was supervised by department of Forensic medicine and Toxicology at Rai Medical College, during the period from 1<sup>st</sup>December 2017 to 28<sup>th</sup>February 2018.

**Methods:** After obtaining the informed consent from the medical students of Rai Medical College, Lip indentation were assembled from the 127students of Rai Medical College Sargodha. These indentation of Lip were documented on a white sheet of paper and each lip wrinkle was accredited with general biodata clues of the medical students like Age, gender and Blood groups and Ethnic group were registered on the Proforma. Lip wrinkles and cracks were categorized by Suzuki and Tsuchihashi. All medical students were in the age scale ranging from 19-25 years involving male 65 and 62 females students. Principled clearance was acquired from the Ethical Committee of Rai Medical College.

**Results:** The highest variation of lip furrows or wrinkles was clear-cut indentation running perpendicular across the lip or Type-I, 72 students (56.7%). Alternative familiar pattern was the Furrows subdivided in the course or Type-II, forty two (33.1%) students which was followed by the , the indentations are linear & fade halfway Or Type-II were only ten (7.9%). The least frequent lip wrinkles type was type-IV only 3(2.4%) students found.

**Conclusion:** Lip wrinkles and cracks variation is eccentric for each and every individual which might be helpful for the identification process, in legal civil and criminal matters.

**Keywords:** lip facsimilia, lip prints, Tsuchihashi classification

### INTRODUCTION

Identification of individual person is very essential for identity and a crucial task for the forensic sciences. DNA and finger printing comparisons are nowadays common techniques for confirmed identification tools which engaged to ensure fast and secure identifications of a person<sup>1</sup>. There are many other crime scenes where auxiliary aids showed the Lip prints, palatal rugae pattern, bite marks becomes very crucial for individualizing the human identification<sup>1</sup>. Lip facsimilia or lip prints or Cheiloscopyis the study of furrows or grooves present in the human lips<sup>2</sup>. Lip prints is identifiable on sixth week of intrauterine life. Lip print gained its importance being a unique feature for each individual, as finger prints pattern<sup>3</sup>. The usefulness of lip variation associated with the fact that lip prints are exclusive to one person, except in monozygotic twins<sup>4,5,6</sup>. In distinction to the moment, lip wrinkles variation rarely revamped, combating many conditions, like herpetic lesions. Lip wrinkles variation are emulated to be the utmost critical kinds of transferal fact which displaying the similarities like finger prints<sup>7</sup>. The incidence of makeup stains on a problematic attire can be calculated, as an ambiguous fact of alliance between the dubious and the

makeup using victim. From the crime scene Lip variations can be affirmed the occurrence or nonexistence of an individual which may be involved in drinking of beverages or regime of any fabric, material/ napkin etc, and stains on goods like bowl, cutlery or fag ends<sup>8</sup>. While collecting the trace evidence the pervasive central 10mm slice of the lower lip is consistently essential for observation. Lip outline determination mainly depends on numerical supremacy of benefit of the crease on the flake<sup>8</sup>. Within twenty four hours & during the intermission of death, lip patterns should be obtained to hamper the inaccurate material from the necropsy changes on the lip<sup>9</sup>. Tsuchihashi or Suzuki and Tsuchihashi<sup>6,10,11,12</sup> categorized the lip grooves into 6different forms which present acquiesce of the architecture and its development.

Type-I: clear-cut indentation running perpendicular across the lip.

Type- I: the indentation are linear & fade halfway.

Type-II: the furrows subdivided in their course.

Type-III: the furrows intersect.

Type-IV: the furrows are reticular

Type-V: the furrows do not yield into any of the types I to IV.

While reproducing the lip it is solely based upon the technique of mouth whether it is opened or closed. The technique of open mouth showed the vague results which are problematic for the interpretation of results and in closed mouth technique lip reproducing the distinctive ridges<sup>13</sup>.

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## MATERIALS & METHODS

After getting the ethical clearance from the institute the informed consent from the students have been taken for lip facsimilia. Data were started to collect from the students from 1 December 2017 to 28<sup>th</sup> February 2018. The department of Forensic Medicine & Toxicology planned to collect and evaluate the frequent Lip furrows among the students of Rai Medical College, Sargodha. A total of 127 medical students of the Rai Medical College Sargodha participated in the study. Variations in the lip stamps were

Systematized by Japanese authors Kazuo Suzuki & Yasuo Tsuchihashi. All lip furrows were documented and each and every students had applied the red lipstick and gave an impression of their lips on a white sheet of paper. Each and every documented paper allotted with names, roll numbers and blood groups and general particulars of the student. In study we have age group of students ranging from 19 yrs to 25yrs.

### Inclusion criteria

- Medical students pleased to impart their role in the study with their informed consent.
- Medical students should have to be free from any active or passive disorders or diseases on their lips.
- Those participated in the study were students of MBBS 3rd year in Rai Medical College Sargodha

### Exclusion Criteria

- Major and minor disorders of lips like cleft lip, ulcers, traumatic injuries on lips.
- Any sort of allergic conditions especially with the lip stick used.

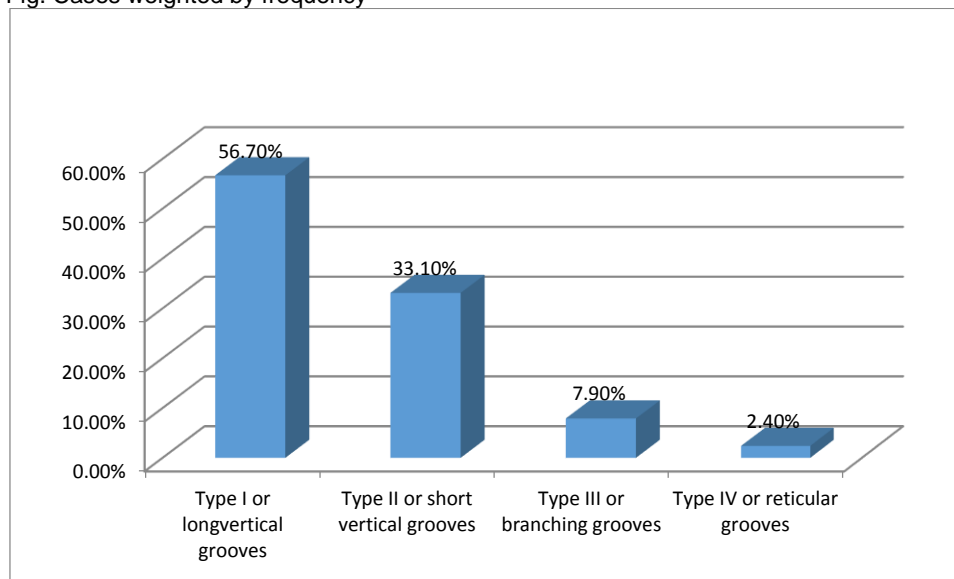
- Those who do not want to participate in the study and were not the students of MBBS 3rd year in Rai Medical College Sargodha.

Materials we used the Red color lip stick, white sheet paper, and magnifying lens along with Tissue papers. The upper surface of the lipstick was wiped clean on tissue paper prior to each use for hygienic purposes. The students were requested to open mouth and then lipstick of red color was applied in a single motion evenly on the upper lip, then on the lower lip. The subject was asked to rub the upper and lower lips together in a horizontal direction, to spread the lipstick evenly on all parts of the lips. Print was acquired on the plain White paper with open and closed lips.

## RESULTS

This study was observational descriptive study which was conducted on the students of Rai Medical College, Sargodha from 1<sup>st</sup> December 2017 to 28<sup>th</sup> February 2018 to explore and describe the trends of Lip prints. A total of one hundred and twenty seven students of 3rd year MBBS class were enrolled in the study. This study revealed that the highest variation of lip furrows or wrinkles was clear-cut indentation running perpendicular across the lip or Type-I, 72 students (56.7%). Alternative familiar pattern was the Furrows subdivided in the course or Type-II, forty two (33.1%) students which was followed by the , the indentations are linear & fade halfway Or Type-II were only ten (7.9%). Very least pattern of lip print was Type-IV grooves, only three (2.4%) students were found.

Fig. Cases weighted by frequency



## DISCUSSION

Personal identification is becoming progressively significant not only in legal medicine but also in criminal investigation, identification and Genetic Research.[14] The present study is the first of its kind being conducted in Sargodha region of Punjab Pakistan describing the lip lines variations in

between the students of Rai Medical College, Sargodha. The current study presented the lip furrows designs are eccentric and no two examples are similarly same. This study revealed that the highest variation of lip furrows or wrinkles was clear-cut indentation running perpendicular across the lip or Type-I, 72 students (56.7%). Alternative familiar pattern was the Furrows subdivided in the course

or Type-II, forty two (33.1%) students which was followed by the , the indentations are linear & fade halfway or Type-II were only ten (7.9%). Extremely least pattern of lip furrows was Type-IV grooves, only three (2.4%) students were found. Recent literature studies have categorized lip furrows have determined their distinctive attributes and appearances<sup>15</sup>, with lip furrows forms, applications of the technique forensically<sup>6</sup> like used for obtaining lip furrows at the scene of crime<sup>15</sup>. After thirty days of production of lip impressions it is difficult to identify the such prints<sup>9</sup>. Lip stick stains are usually found while criminal investigations at forensic science laboratories gave a significant clue of transferring the evidence and gave an important indirect relationship between the suspect and the cosmetic-using victim clothing<sup>16</sup>. Scientific investigations concerning about the reliability of lip furrows showed extremely uncertain results, which will be acceptable in the legal judicial proceedings for recognition of individuality purposes. It is an inert and indefinite science which insist that new studies should be done to confirm and affirm its validity<sup>16</sup>. Similar types of studies has been conducted in Lahore which showed the same type of results<sup>17</sup> and studies in India also showed similar results but in another study in Lahore showed the different results in which most common type of pattern found in female was Type II, while type III was predominant amongst males<sup>18</sup>. As samples size is small and tried to find out the discrimination power of lip prints in identifying the geographical affiliation with accuracy. In Forthcoming studies on more number of samples from different geographical areas and ethnic races of different provinces will help to determine the geographical origin and probable race of different castes of questioned lipprints. Therefore, it can be supposed that lip patterns do have probable use as corroboratory evidence in criminal investigations.

## CONCLUSION

Each Lip wrinkles and cracks variation is eccentric for each and every individual which might be helpful for the identification process, in legal civil and criminal matters.

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