Title: Aid for Personal Identification: Stereomicroscopic Morphological Patterns of Lip Print in Myanmar Population

Htun K S[1], Win H A[2], Hlaing K T[2], Soe K[1], Zaw T[1] & Hlaing T M[1]
[1]Defence Services Medical Research Centre, Naypyitaw, Myanmar
[2]Defence Services Medical Academy

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1. Abstract

The lip prints are very unique throughout the life and can be used to verify the presence or absence of a person from the crime, provided that as an evidence from consumption of beverages, drinks, usage of cloth, tissues or napkin etc., at the crime scene. The objectives were to find out the distribution of different lip print patterns among Myanmar males and females and to determine the relationship between lip prints and blood group. Thin layer of lip-stick was applied on the lips of these subjects. Lip print patterns were counted both upper and lower lip prints with Stereomicroscope. Only middle 10 mm of both upper and lower lips were taken as study area. The lip prints, thus obtained were studied on the basis of Tsuchihashi's classification. There was significant difference between male and female lip print patterns. Type II was most common in both gender. Type I was more common in male and Type II, III and IV were more common in female. The most common lip print patterns in left lower quadrant was Type III and Type II pattern was most common in other three quadrants. The least common pattern was Type V in all quadrants for both gender. No correlation was found between lip print patterns and ABO blood group system. Lip print pattern can be used as an additional tool for personal identification and gender determination.

2. Images

Table.1 Frequency of lip print patterns among males and females

Quadrants	Type I		Type II		Type III		Type IV		Type V		P value
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
RUQ	50	6	28	73	26	24	5	4	1	3	0.001
LUQ	34	15	38	57	29	28	4	7	5	3	0.14
RLQ	39	17	41	26	24	49	5	13	1	5	0.001
LLQ	28	17	37	29	30	35	10	24	5	5	0.04

RUQ = Right Upper Quadrant
LUQ = Left Upper Quadrant
RLQ = Right Lower Quadrant
LLQ = Left Lower Quadrant

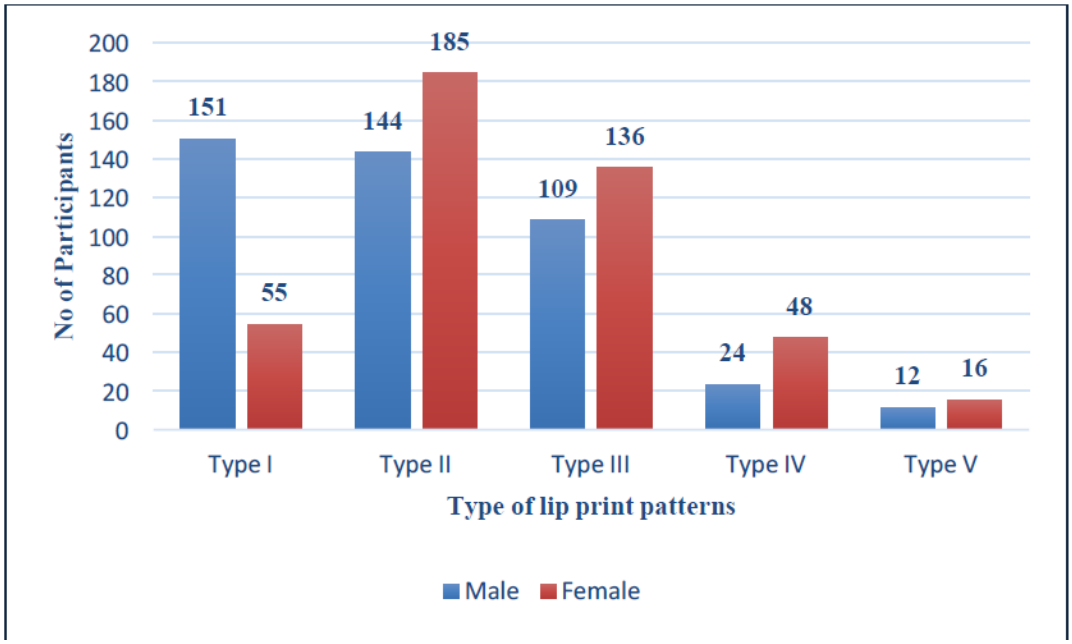


Table. 2 Relationship between lip print patterns and blood groups

Lip Print Patterns		Blood Groups				p value
		A	B	AB	O	
RUQ	Type I	7	16	7	26	0.390
	Type II	20	27	16	38	
	Type III	12	8	5	25	
	Type IV	2	4	0	3	
	Type V	2	0	1	1	
LUQ	Type I	6	15	8	20	0.412
	Type II	20	24	12	39	
	Type III	13	12	6	26	
	Type IV	0	4	2	5	
	Type V	4	0	1	3	
RLQ	Type I	14	17	7	18	0.220
	Type II	12	16	11	28	
	Type III	12	13	7	41	
	Type IV	3	7	4	4	
	Type V	2	2	0	2	
LLQ	Type I	7	16	7	15	0.273
	Type II	14	16	10	26	
	Type III	12	12	8	33	
	Type IV	5	8	4	17	
	Type V	5	3	0	2	

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4. Biography

Dr Kyaw Soe Htun (Htun KS) has completed his M.Med Sc (Medical Jurisprudence) on 2015 from Defence Services Medical Academy. He is the head of Research Ethics, Regulatory and Administrative Department, Clinical Research Division, Defence Services Medical Research Centre. He received five international travel awards from JITMM, GFBR and GHS organization. He has published 46 local publications and four international publications. He is now serving as Secretary of Bulletin (DSMRC) and Joint Secretary of Myanmar Army Health Journal (MAHJ). He is also doing 5 research projects regarding with research ethics, communicable diseases (TB, HIV and Malaria).

5. Presenting author details



Full Name: Kyaw Soe Htun

Contact number: +95 9 428218044

Twitter account: @kyawsoe41715506

Linked In account: kyawsoehtun20@gmail.com

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