

Palmar C-line Variation Among Koppala Velama Caste of Andhra Pradesh

S. Prasanna Latha, D.S.R.S. Prakash and G. Sudhakar¹

Department of Human Genetics, Andhra University, Visakhapatnam 530 003, Andhra Pradesh, India

KEY WORDS Palmar Dermatoglyphics, C-line, Andhra Caste.

ABSTRACT The present paper reports the distribution of terminations of palmar C-line among the Koppala Velama, an Andhra caste population. Among both the sexes, radial type of C-line record highest frequency followed by ulnar, absence of C-line and lastly by proximal type. No significant bilateral and bisexual differences are observed.

INTRODUCTION

Rife (1968) has emphasised the use of palmar C-line termination in population variation studies, since it exhibits both qualitative and quantitative variation. The C-line terminations were classified by Plato (1970) as ulnar, radial, proximal and absence. Since then, many reports are appeared on C-line among various populations. The present paper aimed to report the distribution of C-line terminations among Koppala Velama Caste population of West Godavari District, Andhra Pradesh. The Koppala Velama is an endogamous caste population belonging to Sudra, fourth varna of Hindu Caste system. They speak Telugu, the language of the State of Andhra Pradesh and their primary occupation is agriculture.

MATERIALS AND METHOD

Inked bilateral palmar prints of 190 men and 190 women belonging to Koppala Velama residing in West Godavari district, Andhra Pradesh were obtained. The prints were analysed for model C-lines after Cummins and Midlo (1961) and C-lines were classified following Plato (1970).

RESULTS AND DISCUSSION

The distribution of C-line terminations among males and females of Koppala Velama caste is given in table 1. The C-line terminates

Table 1 : Distribution of modal types of palmar C-line among Koppala Velama Caste of Andhra Pradesh

Hand	Modal Type of C-line			
	Ulnar	Radial	Proximal	Absent
<i>Male (n=190)</i>				
Right	65(34.21)	99(52.11)	12(6.32)	14(7.37)
Left	75(39.47)	84(44.21)	14(7.37)	17(8.95)
R + L	140(36.84)	183(48.16)	26(6.84)	31(8.16)
<i>Female (n=190)</i>				
Right	62(32.63)	95(50.00)	13(6.84)	20(10.53)
Left	77(40.53)	78(41.05)	14(7.37)	21(11.05)
R + L	139(36.58)	173(45.53)	27(7.11)	41(10.79)

Figures in parentheses indicate percentage

χ^2 , for bilateral differences : Male = 2.40; Female = 3.36

χ^2 , for bisexual differences : Right = 1.26; Left = 0.66;

R + L = 1.70

frequently on radial side, followed by ulnar side in both right and left hands of men and women. Among four types of C-line terminations, proximal type recorded the lowest frequency. Around 8 and 11 per cent of palms, among men and women respectively, possess no C-lines. The chi-square tests indicate that both bilateral and bisexual differences in the distribution of C-lines are not significant. Similar distribution of C-line polymorphism is recorded among neighbouring caste (Parvatheesam and Babu, 1997) and tribal populations (Babu and Naidu, 1992 and Kusuma et al., 1994). The tribal populations show significant bisexual variation, which is not noticed among castes.

¹ For Correspondence : Dr. G. Sudhakar

REFERENCES

- Babu, B.V. and Naidu, J.M. : Palmar C-line diversity among some Andhra tribes. *Comp. Physiol. Ecol.*, **17**: 88-91 (1992).
- Commins, H. and Midlo C. : *Finger Prints, Palms and Soles : An Introduction to Dermatoglyphics*. Dover, New York (1961).
- Kusuma, Y.S., Babu and Naidu, J.M. : C-line polymorphism and its association with some dermatoglyphic traits. *J. Hum. Ecol.* **5**: 139-142 (1994).
- Parvatheesam, C. and Bau, B.V. : Palmar C-line polymorphism among Rajaka of Andhra Pradesh. *J. Hum. Ecol.*, **8**: 149-150 (1997).
- Plato, C.C. : Polymorphism of palmar dermatoglyphics with a new classification of the C-line terminations. *Am. J. Phys. Anthropol.*, **33**:413-420 (1970).
- Rife, D.C. : Finger and palmar dermatoglyphics in Seminole Indian of Florida. *Am. J. Phys. Anthropol.*, **28**: 119-126 (1968).