THE APPLICATION OF GENETIC RESEARCH IN THE STUDY OF FORMATIVE ETHNIC IDENTITIES IN ANCIENT SRI LANKA: THE CASE OF '*HAEMOGLOBIN D PUNJAB*' AND THE '*KABOJA*' IDENTITY

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Introduction

Collective ethnic identities are mainly socio-political constructs. In contrast, human genes/blood groupings are specific biological features that are transmitted from generation to generation. Formation and transformation of collective ethnic identity is a complex and evolving process where it provides a common socio-cultural 'form' to an organized group of people with common interest and identity. The diverse formative identities that are integrated to form a common identity may later lose their original identity traits with the evolving of new collective ethnic identity. Despite the changes in nomenclature relating to ethnic identities, the genes and blood groupings of original identities continue to remain in a distinctive form. In this context, medical research on genes and blood groups can be of historical value in understanding and tracing the genealogy of ethnic identities. Deviating from the conventional and exclusive approach, the historical inquiry of human past now joins hands with other disciplines such as medical science to venture into new areas to unearth new historical evidence to construct the history of groups whose identities are buried in the process of constructing new ethnic identities. The focus of this research is to unearth and verify crucial historical information relating to a certain identity group that later integrated into the broader collective identity of the majority of the people in the island with the help of the genetic research. The particular identity group that is focused in the research is 'Kaboja' and the haemoglobin type is Haemoglobin D Punjab.

In the medical clinic conducted by one of our researchers, a rare haemoglobin type mainly in Raja Rata area was found. This particular variant of haemoglobin is Haemoglobin D Punjab. It is important to note that this particular haemoglobin is reported only in Punjab (Northern India) and presently over 2-3 percent of people in Punjab carries this Haemoglobin D. There are many studies on this haemoglobin type and they concentrate mainly on medical and relate aspects. It is very interesting to find this haemoglobinopathy in Anudadhapura District which was core of ancient Raja Rata, Sri Lanka and it provides a key to understand certain aspects of population migration and formative identities in the dawn of Sri Lankan history. The link could be established in the context of relations between Punjab and Raja Rata not in the recent past but in the remote past that goes at least to the Pre-Christian era.

In the history of Sri Lanka, the period between 5th to the 1st century B C was marked by repeated waves of migrations in to the Island from various parts of the Indian landmass. The Vijaya episode itself refers to both North West as well as North East geographical locations of the Indian landmass. Migration was a continuous process and it was not limited to one geographical space. The historical sources provide ample information about many identity groups such as *Dameda, Koboja, Milaka, Muridi, Meraya and Jhavaka.* It is in this context, the reporting of Haemoglobin D Punjab in Raja Rata area has a profound historical value.

Method and Material

The research method employed in the study is an amalgamation of medical and historical research methodology. The historical research concentrates on how to discover memory impressions relating to the term 'Kaboja' while medical research concentrates on the sense perceptions supported by laboratory test to identify Haemoglobin D Punjab.

In the medical clinics, 4 cases of Hb D from the North central province of Sri Lanka over the last 8 year period are reported. It must be noted that only a very small percentage of individuals with Haemoglobin D were clinically present with symptoms and the majority were asymptotic. The presence of 4 cases of haemoglobin D Punjab indicates that there could be more people with the Hb D in Sri Lanka. It needs more field surveys to ascertain the true extent of its spread. Historical documentary research is conducted to study the relationship of Sri Lanka with the Kamboja, Gandhara and Kashmir.

Results

The information on the 4 cases of Hb D is given in table 1.

Patient	Clinical presentation	Diagnosis
1. 24 year old female	Anemia in pregnancy	Hb D/beta thalassaemia
2. 29 year old female	Anemia in pregnancy	Hb D/beta thalassaemia
3. 32 year old female	Anemia in pregnancy	Hb D/beta thalassaemia
4. 48 year old female	chronic hemolytic anemia	Hb D/beta thalassaemia

Discussion

The land area that comes under the present state of Punjab was identified in the 5th century B C as Kamboja/Ghandara. Mahawamsa as well as in the Pali canon mentions Kamboja and Gandhara in the list of sixteenth great *Janapads.* In addition these two 'countries' were mentioned in relation to the mission sent by King Asoka in the propagation of Buddhism. The term Kaboja referred to the Kambojias along with the Yonas and Gandharas. A good deal of inscriptional, archeological and literary evidence has been presented as historical evidence for the existence of Kamboja people as a distinctive social group. The Mahawamsa tradition of historical narration relating to population migration portrays only one dimension

of the multifaceted process. However, scattered other historical evidence supported by the recent findings of medical research brings to light the socio-cultural connectivity that Sri Lanka had with different parts of the Indian landmass in early phase of history of the island which in strategically located at the center of the Indian Ocean with close proximity to the Indian landmass.

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