Genetic Affinity between the Armenian Yezidis and the Iraqi Kurds

Levon Yepiskoposian, Ashot Margarian, Laris Andonian, Armine Khudoyan, Ashot Harutyunian
Institute of Molecular Biology, National Academy of Sciences, Yerevan
Arya International University, Yerevan

Abstract

The Yezidi community in Armenia has been formed during last two-three centuries as a consequence of several waves of migration. Due to the esoteric character of the community, the Yezidis have been reproductively isolated from neighbouring populations for centuries, which has left significant traces in their genetic structure. Our results based on the analysis of patrilineal genetic lineages demonstrate that the long-term isolation of the Yezidis has resulted in notable reduction of male sex chromosome variability compared to other populations and significant difference from the Kurds living in Iraq. However, the analysis of specific lineages provides evidence on similar genetic traits between the Armenian Yezidis and the Iraqi Kurds.

Keywords

Yezidis, Kurds, Genetic Affinity

The Yezidis are a small Kurmanji-speaking ethno-confessional group, the followers of an esoteric doctrine, called Yezidism or the Yezidi religion. The so-called ethnic territory of the Yezidis appears to be the area near Mosul in North Iraq, where the main sanctuary of this people, Lalish, is found. It is also the main centre of the Yezidi population, the actual homeland of the Yezidis, from where, during the centuries, several waves of migrations due to various socio-political factors have taken place. The ancestors of the Yezidis currently living in Syria, southern parts of Turkey (now mostly emigrated to Germany and Syria), Armenia, and Georgia once lived almost certainly in the mountainous areas of North Iraq (see Guest 1987).

The core of the Yezidi community was formed in the period from 11th to 14th centuries (see Arakelova 2006) on the basis of various ethnic components—Semitic (Arab and Aramaic) and Kurdish.
The origin of the Yezidi community in Transcaucasia dates back to the conquest of the area by the Russians. When the Russian army withdrew from Anatolia after the 1828-1829 war, some Yezidis were permitted to move to the province of Erivan. In the 1830s, during a period of ethnic turmoil in Ottoman Anatolia, a number of the Yezidis escaped across the border. In 1855, a Russian army report identified a Yezidi settlement of some 340 souls in the Sardarabad district in Eastern Armenia. As a consequence of the 1877-1878 war between Russia and Turkey, about 3,000 Yezides were resettled in the Alexandropol district (nowadays, Shirak region in Armenia). With the inclusion of these new immigrants, the total number of the Yezidis in the Erivan province (generally the territory of present-day Armenia) became around 8,000 in that period.

Another migration occurred between 1879 and 1882. By the beginning of 1912 the number of the Yezidis had increased to about 24,500—over 17,000 in the province of Erivan, 2,000 in and around Tiflis, and over 5,000 in the provinces annexed in 1877. Four years later the Yezidi population in Transcaucasia was shown as 40,882; most of the increase was in the annexed provinces, but the Yezidis in Tiflis had risen to 4,697.

In 1918, the Yezidis in the province of Kars, unwilling to revert to the Ottoman rule, joined the civilian refugees seeking a safe haven in Armenia and Georgia. The Yezidis in the Surmalu district were resettled in villages on the southern slope of Mount Aragats, abandoned by Kurds and Turks (see Asatrian/Arakelova 2009: 12-17).

Today, in Armenia, according the 2001 census, there are around 40,000 Yezidis.

Only a few genetic studies have been carried out on Kurdish groups. Previous genetic studies of classical markers (Cavalli-Sforza/Menozzi/Piazza 1994) indicated a genetic proximity of Kurds to other Middle Eastern populations. Comas et al. (2000) found close European affinities for Kurdish matrilineal lineages while studying the Kurds living in Georgia. Richards et al. (2000), analysing the same genetic markers among Kurds from Eastern Turkey, found that some lineages in Kurdish data set possibly originated in Europe and were associated with back-migrations from Europe to the Near East. Wells et al. (2001) who investigated the distribution of male (Y) chromosome markers in a group of Kurmanji Kurds living in Turkmenistan, has not made any specific inferences about the history of this group. Nebel et al. (2001) while studying patrilineal lineages among different groups from the Middle East, found close affinities for the Kurdish sample from northern Iraq to
other Middle Eastern groups. Quintana-Murci et al. (2004) studied 20 Kurds from Western Iran and 32 of them from Turkmenistan, among others from Iran, Pakistan, and Central Asia, but did not come to any specific conclusion. Nasidze et al. (2005) studied Kurdish groups in Georgia and came to conclusion that during the migration into the Caucasus they experienced a bottleneck effect, and since that time have not undergone detectable admixture with the Georgians.

Hence, the Yezidi community has been strongly isolated from other ethnic and religious groups during at least 7-8 centuries. In the framework of this paper, we attempted to elucidate the following points relating to the genetic history of this ethnic group:

(a) Is it possible to get from the existing data any serious evidence on the common origin of the Yezidis and the Kurds?
(b) To what extent long-term reproductive isolation has reflected on the genetic proximity between the Kurds from North Iraq and the Yezidis living in Armenia?
(c) Are there any specific features in male lineages for the Yezidi population living in Armenia?

DNA samples were collected during 2000 and 2001 from 202 Yezidi males, unrelated at the paternal-grandparental level in six mountainous villages located in central part of Armenia. Comparative data on 95 Kurds were taken from the studies of this community in Northern Iraq (Nebel et al. 2001; Birkman et al. 1999). All samples were screened for 18 genetic markers on male sex chromosome.

The results demonstrate that the Yezidis living in Armenia significantly differ from the Kurds. In the same time, both groups display strong evidence on their Mediterranean origin, bearing in their gene pool the genetic signature of Neolithic farmers (Quinta-Murci et al. 2001): 40,0% of Kurdish lineages belong to this major genetic group, whereas the corresponding figure in the Yezidis is 41,6%. The incidence of the next frequent genetic group displays notable difference between two groups—16,8% in Kurds and 28,2% in Yezidis living in Armenia.

The two datasets share only eight lineages out of 94 identified for the pooled sample of the two populations. Among these only two are modal, defined as that occurring in any population at a frequency greater than or equal to 10%. The Kurdish and Yezidi modal lineage is shared with neighbouring or Middle Eastern populations, and also is one of the modal lineages in Turkey and Azerbaijan Republic, and in some geographical groups of Armenians (Weale et al. 2001). In contrast, another Yezidi modal lineage is specific to this population, as its frequencies in other neighbouring ethnic groups from the South Caucasus
and Middle East are extremely low or even absent (Nebel et al. 2001; Weale et al. 2001; Nebel et al. 2000). Meanwhile, this lineage is encountered in Kurds at a very small frequency. It is interesting that the major group to which this modal lineage belongs, has just two sources (founders) in the Yezidis, which may reflect that only two clans took part in further spread of this lineage.

Genetically, the Yezidi community is significantly less variable than the Kurds. There are at least three reasons causing this difference. Firstly, it could be created at the initial stages of Yezidis’ religious community development due to limited number of people involved in this group and, as a consequence of cultural isolation, rather high rate of inbreeding. Secondly, it might be originated in the course of numerous migrations from Iraq to Turkey and, further, to Armenia. It might be suggested that most members of genetically related families (clans) have migrated from one region to another. The third reason causing decrease of variability is that the Yezidi community in Armenia is religiously and culturally isolated with only small genetic flow from the Yezidi community living in Georgia—both having been, in fact, parts of the same group of migrants to Transcaucasia. Therefore, smaller genetic diversity of patrilineal lineages in Yezidis could be considered as an inherent feature of the population caused by cultural traditions and the historical destiny of the population. In general, these peculiarities result in significant difference between the two populations considered.

Another evidence of the extreme isolation of the Yezidis comes from the observation of distribution of patrilineal lineages in the two populations. Whereas in Kurds there is only one lineage with a comparatively high frequency and others are evenly distributed, in Yezidis there are several frequent ones. It is also evident while comparing the number of different lineages—64 in 95 Kurdish samples and 39 in 202 Yezidi samples.

Overall, the results of this study show that the long-term reproductive isolation of the Yezidis and their small initial population size have considerably increased the genetic distance between the Yezidis and the Kurds. These processes have resulted in greatly reduced genetic diversity in the Yezidis, as well as have caused changes in the frequency of various lineages. However, despite all these differences between the two populations, it is still possible to find genetic signals of common origin of the Yezidis and Kurds, especially comparing their paternal lineages (e.g. sharing of the modal lineage) and their distribution. The two populations are definitely indigenous by their origin since the most frequent Yezidi and Kurdish lineages derive from the Middle Eastern
region, and the two groups are genetically close to the neighbouring populations of the area.

However, we should be cautious in making inferences for the Yezidi population as a whole on the basis of samples collected from the community living in Armenia and studying only patrilineal markers. It would be interesting also to study other genetic systems with different modes of transmission in these two populations, as well as to compare both the Iraqi Kurds and the Yezidis living in Armenia with the Yezidis living in Iraq. These data should considerably enhance our knowledge about the genetic relationships between the Yezidis and the Kurds and show to what extent they have diverged from each other during the centuries of reproductive isolation.

**BIBLIOGRAPHY**


