

G41 The Lethal Migrant Sea Route to Italy and the Nigerian Disaster Victim Identification (DVI) Operation

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Learning Overview: After attending this presentation, attendees will have a deeper understanding of how victims of migratory flow should be managed, how important teamwork is, and the application of the International Criminal Police Organization (INTERPOL) standards.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by presenting the complete rescue, recovery, DVI, and burial operations of 26 bodies drowned in the Mediterranean Sea while migrating to Italy.

On the November 5, 2017, a migrant boat with 375 Nigerian migrants was rescued in the Mediterranean Sea by the Spanish military ship *Cantabria*. Twenty-six Nigerian women and girls were found dead from drowning. The boat with migrants departed from Libya but began sinking near the Italian coast because it was overloaded. Dead bodies were found floating in the water, while survivors clung to partly capsized rubber dinghies. At least 100 bodies are believed to be still missing in the sea.

A DVI operation was established in Salerno, where the *Cantabria* was due to dock. The forensic pathologist appointed by the Penal Court in Salerno promptly set up a team of other forensic pathologists, odontologists, and anthropologists. Personal belongings and all identifying traits (tattoos, scars, and anatomical variants) were recorded during the first preliminary external examination of the dead bodies. Autopsies were conducted at the local cemetery with the goal of diagnosing the cause of death and retrieving all possible data of potential criminal acts, such as torture or violence. Two girls were found to be pregnant, and the cause of death was drowning for the whole group.

Dental autopsies were performed according to INTERPOL standards, with the principal goal of assessing the age of the victims. Age estimation was assessed using Mincer et al., AlQahtani et al., and Carmeriere et al., through the periapical radiographs of canines and third molars, using a portable X-ray hand-held device.¹⁻⁴ The age assessment revealed a demography of five minors and 21 adults. Dental examinations and autopsies were completed in three days for the purpose of speeding up the entire operation. Unusual findings will be presented, including a SIM card, ethnical identifying tattoos and scars, and four bitemark-patterned lesions on two of the victims. State funerals were held on November 17, 2017, with a Catholic and Muslim ceremony in the presence of the surviving Nigerian migrants, authorities, and citizens of several nationalities.

Since 1993, the number of migrants whose deaths have been reported is 34,361.⁵ In addition, there are migrants whose deaths go undocumented, because they are lost at sea or die in the backs of trucks. These deaths can be described as a humanitarian mass disaster, rather than simply a natural mass disaster. The highest number of deaths occurred in the Mediterranean Sea, considered the most lethal sea route to Italy. From the forensic perspective, humanitarian forensic odontology can offer a strong contribution to migratory flows and illegal migration, reinforcing public health assessment, border control, and identification of the living and the deceased.

Reference(s):

1. Mincer H.H., Harris E.F., Berryman H.E. The ABFO Study of Third Molar Development and Its Use as an Estimator of Chronological Age. *J. Forensic Sci.* 38 (2) (1993) 379–390.
2. AlQahtani S.J. (2008). Atlas of Tooth Development and Eruption. Barts and the London School of Medicine and Dentistry. London, Queen Mary University of London. *MClindent*.
3. Cameriere R., Ferrante L., Belcastro M.G., Bonfiglioli B., Rastelli E., Cingolani M. Age Estimation by Pulp/Tooth Ratio in Canines by Peri-Apical X-Rays. *J Forensic Sci.* 2007;52:166–70.
4. Cameriere R., Cunha E., Sassaroli E., Nuzzolese E., Ferrante L. Age Estimation by Pulp/Tooth Area Ratio in Canines: Study of a Portuguese Sample to Test Cameriere's Method. *Forensic Sci. Int.*, 2009, 193(1–3).
5. Needham A. The List: The 34,361 Men, Women and Children Who Perished Trying to Reach Europe. *The Guardian*, 20 June 2018 available at <https://www.theguardian.com/world/2018/jun/20/the-list-34361-men-women-and-children-who-perished-trying-to-reach-europe-world-refugee-day> (last accessed August 1, 2018).

Migrants, Humanitarian Forensic Odontology, Dental Age Estimation