

Oral health and childhood stress in final neolithic Belgium at Grotte de la Faucille

IJk van Hattum, Joel D. Irish, Isabelle De Groote

Methods

Data collection per tooth or alveolar socket facilitated calculations of frequency of occurrence (number of affected teeth). Due to commingled remains, prevalence, defined as the number of individuals in the population affected, could not be determined.

Minimum number of individuals (MNI) and age estimates

To estimate the minimum number of individuals (MNI), tooth types and sides were identified for isolated teeth. Age estimations based on the development of the juvenile dentition, and antimeres were considered to avoid underestimating the MNI. Age estimations were established using the London Atlas by Al Qahtani et al. (2010) for permanent teeth and the system by Moorrees et al., (1963) and Al Qahtani et al. (2010) for deciduous teeth.

Dental Caries

Dental caries were identified by the presence of visible cavitation, with a differentiation made between coronal and root surface/cemento-enamel junction (CEJ) caries (Hillson, 2001). The location of each lesion was recorded, and large lesions were classified as gross caries if their point of origin was no longer discernible.

Calculus

Calculus was assessed per tooth using a four-point scale (0= absent, T= trace, 1=small amount, 2=moderate amount, 3=large amount, 9=unobservable), with locations (lingual/labial) recorded. Buikstra & Ubelaker's (1994) scoring system was utilized with minor modifications. The T was added to the scale for trace amounts of calculus, and detachment caused by post-depositional processes may underestimate its presence or severity.

Wear patterns

Anterior tooth attrition was assessed using Smith's (1984) scoring system. Brothwell's (1981) 17-point scale method was employed to evaluate molar attrition. Molnar et al.'s (1972) method was utilized to record occlusal angle and wear planes in both isolated and in situ teeth.

Chipping

We documented the presence or absence of chipping in erupted permanent teeth with a crown. Chipping is defined as irregular cracks in the enamel, sometimes also involving the dentin (Bonfiglioli et al., 2004; P. Molnar, 2011). To distinguish between antemortem lesions and post-mortem destruction, the surface characteristics were assessed according to Scott and Winn's guidelines (2011).

Periodontal disease

The study utilized a simplified version of Kerr's (1988) scoring system for alveolar reduction proposed by Tomczyk et al. (2017). Oral health was assessed by recording tooth presence/absence in each alveolar socket, distinguishing between antemortem (AML) and post-mortem tooth loss (PML). Lukacs' (1989) criteria were used to identify abscesses, with their presence indicated by the destruction of the jaw's external bone surfaces.

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