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Neanderthal medicine?

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Abstract

In 1856, a skeleton was found in a cave in the Neanderthal valley near Düsseldorf, Germany. After a long discussion, whether these bones would belong to a recent human being suffering from a disease, i.e. rachitis, it became accepted at the end of the nineteenth century, that, together with numerous similar remains from France and Belgium, these bones belong to a different species, *Homo neanderthalensis*. Neanderthals belong to a branch of the human evolutionary tree; they evolved from *Homo heidelbergensis* and lived during the ice ages in Western Europe, the middle East and West Siberia. Neanderthals got extinct about 40,000 years ago. The Neanderthal remains from the Neanderthal valley belong to an approximately 40 year old male, who suffered from numerous injuries and illnesses during lifetime such as a broken ulna and meningitis, which he apparently survived. This probably shows that he could only survive, because his group took care of him [1]. There are numerous examples from the Shanidar cave in northern Iraq, that have been excavated between 1950 and 1960 by Ralph Solecki, showing similar signs of diseases or injuries [2]. Shanidar I was a male of about 40-50 years. He was handicapped since childhood or early adulthood and died by a rock fall. His skull showed a deformation of the orbita due to crushing injury, most probably causing blindness of the left eye. His right arm was completely atrophied, either due to amputation or an extreme osteomyelitis years before his death. Two hearths were found in the vicinity of the skeleton, i.e., he probably watched the fire. An atypical abrasion of the teeth, indicating the use for heavy chewing (for example leather, like Inuit people did until recent times), shows that he made himself useful around the hearth. Shanidar III was wounded by a spear in his chest, which stuck in his ribs. He survived at least two weeks, because the gouge in his bone had started to heal [2,3]. The most interesting remain in terms of “medicine” is Shanidar IV, the “flower burial”. Earth probes around the skeleton revealed pollen of plants, such as horse tail (German: Schachtelhalm), senecio (Kreuzkraut), hollyhock (Malve), cornflower (Kornblume), grape hyacinth (Traubenhyazinthe), and yarrow (Schafgarbe), plants that are used as medical plants since ancient and medieval times until today [2]. There is increasing evidence that Neanderthals might have used these plants as medical plants by data from the El Sidrón cave in Spain (about 50000 years ago) [4]. Analysis of the calculus of an adult Neanderthal revealed that this individual ate a range of cooked carbohydrates. The organic compounds azulene and coumarin were found, consistent with yarrow and camomile. The authors propose that *“the Neanderthal occupants of El Sidrón,had a sophisticated knowledge of their natural surroundings, and were able to recognize both the nutritional and the medicinal value of certain plants. Although the extent of their botanical knowledge and their ability to self-medicate must of course remain open to speculation...”*

Today, there is strong archaeological evidence that Neanderthals were real human beings that took care of each other. Their skeletal remains clearly show that they were able to treat even severe injuries and illnesses and that they used medical plants.

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