

# Medicinal properties of body parts

Shakespeare wrote of treatment with witch's mummy, liver of blaspheming Jew, Tartar's lips and finger of birth-strangled babe, but it is doubtful that he took any of them seriously. In this article, **Peter Cooper, FRPharmS**, delves into the gory depths of the use of human body parts in medicine

## Mummy was an ingredient in many medicines

The name "cannibal" was given in the 16th century to the Caribs of the Antilles, who duly took their place in old literature as anthropophagi. As was mentioned by Christopher Columbus, who discovered the name when he landed in Haiti, the interchange of "r" for "l" or "n" in American dialects (resulting in Calibs or Canibs) was commonplace. The dictionary definition of a cannibal is "a man who eats human flesh" or "an animal that preys on its own species."

The incidence of cannibalism is impossible to assess. There have been rare emergencies when stranded explorers or wrecked mariners have, as a last resort, consumed their fellows but communities that practise cannibalism are usually reticent over the custom. In contrast, *Homo* as a medical resource has featured throughout history and, in our own time, we increasingly resort to organ transplants, blood preparations and, most recently, embryonic stem cell preparations in our attempts to cure or alleviate serious conditions that threaten life or its quality. We might well include such practices, using part or whole of our own brothers and sisters, under the comprehensive title of cannibalism, though free from its usual stigma.

## Homo as a drug

Moise Charas, in his 1676 compendium of drugs, adopted a wide view. "It may be said," he wrote, "that there is not any part, no superfluity in man or woman, which chemistry cannot prepare for the cure and ease of most diseases and pains to which they both are subject." Charas recommended that apothecaries should look for palliatives and cures among the many products of the human body. A little later, in 1768, the anonymous author of 'Dictionnaire botanique et pharmaceutique', published in Paris and describing itself as "Ouvrage utile aux jeunes pharmaciens et chirurgiens, aux hôpitaux, aux communautés, et aux personnes charitables qui pansent les pauvres", devoted several pages of his text to *Homo* as a drug.

Robert James in his 'Pharmacopoeia universalis' of 1747 also devoted some space to the human body and its products as therapeutic agents. Under the heading *Homo* he remarked: "Man is not only the Subject of Medicine, but contributes with his Body to the *Materia Medica*. Official Simplex, furnish'd from the Parts of the human Body, whilst alive, are the Hairs, Nails, Saliva, Ear Wax, Sweat, Milk, Menses, Secundines,

Urine, Dung, Semen, Blood, the Stones of the Bladder . . . and the Membrane which covers the Head of the Foetus." James goes to great lengths to describe the medical uses of these body products. For example, he commends hair for the "production of hairs" as well as jaundice and stopping haemorrhage.

Years before this, Pliny advocated the application of hair, mixed with vinegar, to dog bites and with oil or wine for healing head wounds. And physicians in the Middle Ages thought that chopped hair was a good internal remedy for jaundice. Moreover, a distillate from hair mixed with honey was reputed to stimulate the regrowth of hair on a bald pate. In fainting attacks, fumes from burnt hair are considered as effective as those from burnt feathers. One remarkable emetic in the form of a draught of human nail parings in wine might be modified by substituting hair for nails.

In James's *Pharmacopoeia*, nails are said to provoke vomiting and to be good for dropsies (accumulation of fluid). Earwax is listed as a remedy against colic and, applied outwardly, it cures scorpion stings and heals skin wounds. Sweat is effective against scrofula (tuberculosis) if mixed with mullein and applied with

the leaf. Dried menstrual blood is consumed for the stone and for epilepsy, while externally it relieves the pain of gout and cleanses facial pustules. Secundines (the umbilical cord and placenta released after childbirth) are “extolled”, so James writes, in epilepsy, and, curiously enough, for counter-acting the effects of love philtres (spells) and “for destroying noxious vermin.”

James' Pharmacopoeia recommends saliva from a fasting man to counteract the effect of venomous bites of serpents or mad dogs. In fact, saliva has long been considered a good therapeutic agent readily available. Since Pliny's time, as well as a remedy for serpent bite, regular applications of fasting saliva were reputed to resolve skin eruptions, even leprous sores, and when incorporated in an eye salve was a cure for irritation. Even today, in folk medicine, saliva is thought to suppress warts. We cannot take seriously, however, Pliny's remark that pains in the neck can be relieved by applying fasting saliva with the right hand to the right knee while the left hand is kept on the left knee.

Urine is not exempt from our list of *materia medica*. It had many virtues in “obstructions of the liver, spleen and gall-bladder, in the dropsy, jaundice, and as a preservative against the plague”. And, fantastically, when a woman suffers difficult labour a draught of her husband's urine facilitates delivery. Indeed, urine has a host of therapeutic qualities, listed in the *Dictionnaire* of 1768 as well as in James' *Pharmacopoeia*. Revolting as this idea may sound, the idea of medication with human dung is worse. It is very serviceable”, wrote James, in mitigating pains induced by charms, for resolving “pestilential Carbuncles”, and for preventing inflammation in wounds. He remarks that it was prescribed by mouth for the quinsey (suppurative tonsillitis), to repress the crises in fever and to relieve epilepsy. For epilepsy, too, a draught of recent hot blood was claimed to be effectual.

The notion that men's urine when drunk relieves gout goes back as early as Pliny. A mixture of stale urine with the ash from burnt oyster shells was applied to heal rashes, ulcers, sores, burns, and scorpion stings, while

a draught of urine was given in the Middle Ages to cure dropsy and jaundice. The essence of urine prepared by distillation was considered effective against gout, renal calculi and asthma. In 1685 Madame de Sevigne recorded: “For my vapours I take eight drops of essence of urine and, contrary to its usual action, it has prevented me from sleeping.”

### Touch of the dead

Until recently, therapeutic virtue was ascribed to the mere touch of a dead hand of an executed criminal. When John Horwood was hanged for murder in 1821, the *Bristol Mirror* reported: “A number of foolish women with their children ascended to the top of the lodge, after the culprit was turned off, for the

Sir Thomas Browne in 1650 included in his ‘Vulgar errors’ the habit that “for Warts we commit any maculated part unto the touch of the dead”. And in 1688, John Aubrey recorded that in Somerset a wen (sebaceous cyst) “as big as an egge” in a countryman's cheek “was cured by stroking it with his kinswoman's hand”.

### Mummy

The most famous human preparation to achieve notoriety has been mummy. Pierre Pomet in his ‘*Historie générale des drogues*’ of 1691 says a great deal about mummies, and he quotes Herodotus concerning their preparation. True mummy, Pomet says, is valuable as a remedy, but many worthless imitations have been offered to collectors. In parts of Africa, for example, there are “white mummies” made by burying drowned travellers in the desert sand.

False mummies were made by disembowelling any convenient body and filling the cavity with myrrh, aloes, bitumen, pitch and other gums, and applying bandages as in the genuine mummy. The product was dried in an oven and sold to the uninitiated. Pomet advises his readers to buy mummy “of a good shining Black, not full of Bones or Dirt, of a good smell, and which being burnt does not stink of Pitch. This is reckoned proper for Contusions and to hinder Blood from coagulating in the Body; it is also given for Epilepsies, Vertigoes and Palsies, the Dose is two Drams in Powder, or made into a Bolus. It also stops Mortifications, heals Wounds, and is an Ingredient in many Compositions.” However, John Webster in ‘The white divel’ of 1612, tells of mummy being emetic — a highly likely quality:

*Your followers*

*Have swallowed you like mummia, and being sick  
With such unnatural and horrid physick,  
Vomit you up in the kennel.*

When Avicenna refers to *mummia* he is believed to have meant bitumen. Dealers in drugs maintained a prolonged confusion over whether medicinal *mummia* was a mixture of fat and bitumen which exuded from a mummy-case or the preserved flesh within

### Madame de Sevigne took urine for vapours

purpose of having their disorders cured by touching the dead hands.” This strange notion was mentioned by Pliny in the first century AD. He claimed: “Scrofula and throat diseases may be cured by the contact of the hand of a person who has been carried off by an early death; indeed, some assert that any dead body will produce the same effect, provided that it is of the same sex as the patient and that the part affected is touched with the back of the left hand.”

the wrappings. Both products enjoyed a commercial success, since no one cared to enquire too closely into the origin of the product.

### Goddard's drops

When mummy fell into disrepute or became too expensive or difficult to acquire, human bone took on added value as a medicament that shared its virtues. The archaeologist A.C. Smith recorded in 'British and Roman antiquities of North Wiltshire' in 1885: "Much of the ground hereabouts was thoroughly dug over in the 18th century by a Dr Toope of Marlborough for human bones out of which he made a notable medicine that relieved many of my distressed neighbours." Since the skeletons locally available belonged mainly to the Bronze Age, it is difficult to imagine that they would retain much in the shape of therapeutic activity.

Dr Toope probably adopted the process invented by Dr Goddard for making Goddard's Drops or Spirit of Skull. Goddard did his work during the Commonwealth period and is reputed to have sold the secret of his celebrated drops to Charles II for £6,000. The king was sufficiently impressed to compound the drops himself in his laboratory in Whitehall Palace. They were one of the last remedies given to him to control his deathbed convulsions in 1685. The dose used was 40 drops — more than three times the usual maximum prescribed.

The method used to make Goddard's Drops involved comminuting dried human bones, distilling them in a retort, and setting the distillate aside for three months. It was then digested at a gentle heat for 14 days. Separating the oily layer produced an evil-smelling product to which was added spirit of nitre: "Then you will have a medicine beyond all comparison exceeding the other tenfold in worth and efficacy."

Drops made from a skull were specific for the falling sickness (epilepsy) and, in 1685, London dealers were asking eight to 10 shillings each for human skulls. This was reminiscent of a formula devised by Paracelsus in the 16th century. This called for three skulls of men who had died a violent death and not been buried, distilled with musk, castoreum and honey. To render this more abhorrent, liquor of pearls and oil of vitriol were sometimes added.

### Skulls and brain

Charas, quoted by Pomet, records: "The English Druggists, especially those of London, sell the Heads or Skulls of the Dead upon which there is a little greenish Moss which is called Usnea because of its near Resemblance to the Moss that grows on Oaks." To produce the Usnea it was said to be necessary to use the skull of a man who had died violently and that had been exposed for some time to the elements. The druggist built up a brisk trade with Ireland, where hanged criminals were customarily left on a gibbet until they fell to pieces. It is interesting to

### The public executioner sold human fat for use in ointments

note that Robert Boyle reported in 1664: "Having been one summer frequently subject to bleed at the nose, and reduced to employ several remedies to check that disorder; that which I found the most effectual to staunch the blood was some moss off a dead man's skull (sent for out of Ireland, where it is far less rare than in most other countries), though it did but touch my skin till the herb was a little warmed by it." Skull moss was reputed to have an earthy smell and a rough earthy taste.

The brain has long enjoyed a good reputation as a medicament. As early as the Ebers Papyrus of 1500BC there is a recommendation for a damaged eye: "Take a human brain and divide it into halves. To one half add honey and anoint the eye therewith in the evening. Dry the other half, crush, powder and anoint the eye therewith in the morning."

### Human fat and blood

Human fat was once sold in Paris, and was a perquisite of the public executioner who, according to Pomet, had a virtual monopoly of this strange product, and "the Druggists and Apothecaries sell very little: nevertheless they vend a sort of it that is prepared with aromatical Herbs and which is, without comparison, much better than that which comes from the Hands of the Hangman". The superior product was called Adeps or Axungia and recommended to relieve rheumatism. An all round useful ointment, writes Pomet, was made by melting together "Man's Grease, two Pounds; Gum Elemi, half a Pound; Beeswax and Turpentine, of each one Pound; Balm of Gilead or Peru, four Ounces." This composi-

tion enjoyed some disrepute since not only was it used therapeutically, but it was in high demand for making candles to be used in occult and evil ceremonies. When allowed to soak into the dried hand of an executed malefactor it produced the notorious *main de gloire*, which could open all locks and send the owners of valuables to sleep while they were robbed.

"Spirit of human blood", described in the Dictionnaire of 1768, was made by distilling blood and mixing the distillate with angelica water and tincture of peony flowers. It was highly esteemed as a remedy against asthma, palsy, epilepsy and apoplexy (stroke). Celsus commented in the first century AD in his 'De medicina' in respect of epilepsy: "Some persons have been freed from this disease by drinking hot blood, taken from a gladiator who had just been slain." This reminds me of Hamlet's remark:

*Now could I drink hot blood,  
And do such bitter business as the day  
Would quake to look on.*

Pliny found this idea disgusting, despite the fact that many Romans of his time accepted that a drink of gladiator's blood conferred strength and courage. Any person who undertook the test cannot have been lacking in these two virtues, but may have lacked taste and discrimination. In medieval times, dried blood was commonly applied to arrest bleeding from a wound and, in 1608, Jean de Renou called human blood "Nature's treasury" and advised that for medical use it should be collected only "from sound and temperate men".