

## MEDIEVAL MEDICINE

When talking about the practice of medicine in Medieval times it is not possible to do so without first examining medicine as it was practised thousands of years previously, not only in Roman times, but more particularly in Ancient Greece. For so much of formal medieval medicine was based on these ancient practices.

Our first knowledge of Greek medicine comes from the poems of Homer written about 750BC. Poems that tell of the siege of Troy, and the soldiers that fought in that war. Doctors are described giving common-sense treatment to the wounds suffered by the warriors.

Two different medical traditions developed. One was based on the rational tradition that came to be associated with Hippocrates and the other was a supernatural tradition associated with the Greek God of healing, Asclepios; whose sons were said to have fought at Troy.

We find that the medical books associated with Hippocrates were written from about 430BC onwards and the cult associated with Asclepios, although founded in Trojan times did not really develop until after 400BC when great temples, called Asclepiions, were built to house the cult. Therefore medicine developed along two different paths. One based on natural or rational medicine the other founded on primitive supernatural system.

Sick peoples seeking cures at an Asclepiions would spend at least a night at the temple. On arrival they would

- Make an offer or sacrifice to the God
- Bathe in the sea to cleanse and purify themselves
- Sleeping overnight the patients expected to be visited by the Gods. Some had dreams. Others were probably treated by priests. The snake was the God's sacred animal. The priests used snakes as part of the treatment, ointments were rubbed into the affected part and snakes used to lick the ointment and the sick part as well.
- We are familiar today with the I symbol of a snake wrapped round a staff signifying an association with medicine.

The patient was supposed to wake up cured the next morning. If they felt better the Gods had looked favourably upon them, if not the patient had failed in their devotion to the God. An early example of all care and no responsibility, perhaps.

The cult of Asclepios flourished well into the Roman period until about 400AD. The practice of taking sick people to a religious site in the hope of a cure lasted even longer. This is what happened in many medieval pilgrimages and, of course, is seen at many religious sites today.

This is an example of continuity in the practice of medicine. In life we like to concentrate on change but continuity is an important part of the overall picture.

When we look at the work of Hippocrates we see that he was influenced by the thoughts of earlier philosophers. Pythagoras, who taught that a healthy body was one in perfect balance and Pythagoras' followers who argued that that a healthy body had the right balance of hot and cold, wet and dry within it. An obvious imbalance occurred when a patient developed a fever or shivering. The right treatment was to put the body back in balance.

Hippocrates shunned the dependence on religious practices, on magical causes and cures. He believed that it was important to concentrate on the patient rather than the illness. He did not believe that a cause of a disease could apply to every case and preferred to observe, take note of symptoms. To develop knowledge of a pattern in disease so that developments could be anticipated, what would happen next. He preferred to let an illness take its course, to provide a patient with a clean and a calm environment. To encourage the restoration in a body's balance.

Aristotle took things further a hundred years later. He introduced the philosophy based on the four humours. The body was made up of blood, phlegm, yellow bile and black bile. There were also four seasons to which the four humours were connected. Yellow Bile connected to the summer, black bile with autumn and so on. The humours were produced by various organs Black Bile Spleen, Phlegm the lungs, Blood the Head and Yellow Bile the Gall Bladder. The humours had to be in balance for a person to remain healthy. Too much phlegm in the body, for example, caused lung problems and the body tried to cough up the surplus phlegm to restore a balance. It meant that it was possible to have too much of a connected humour in the body during a particular season, too much phlegm in winter for instance. Colds and bronchial problems are more common in winter than summer. These illnesses are likely to produce lots of phlegm. In the theory of the four humours such an imbalance was seen as the cause of the disease rather than the symptom. If a patient who is hot and feverish he had too much blood in his body and he was bled by cutting into a vein.

## The Romans

In the early years there were very few doctors in Rome. The head of the house, using a mixture of common sense and superstition was responsible for treatment in his household. Specialised medical knowledge was associated with the Greeks and as Greece was a conquered nation Greeks per se had a low social status and were often slaves or ex slaves.

However we do know that during an outbreak of plague in 293BC the Romans built an Asclepion in Rome sited on an island in the Tiber. They even imported a sacred snake from Greece. However the important thing to acknowledge about Rome's influence on medicine is their attitude to public health and cleanliness etc. They were in constant need of healthy recruits for their legions and hence it was in Rome's interest to maintain high standards.

It is interesting that they, like the Hippocratic tradition, learned much from observation. A classic example being their observation that people living near marshes and swamps for example tended to get ill from what we now call malaria. Initially they built a temple believing in the supernatural causes and cures for the disease. As this temple was built in the swampy area it is no surprise that there was little reduction in the incidence of the disease. The next solution was to drain the swamps. The fewer the swamps the less incidence of disease. The Romans didn't have a clue as to the actual cause but their remedial action worked.

Such observations lead to the association of ill health with "bad air or bad smells" bad water, being near sewage not keeping clean. So when it came to setting up camps or building houses such observations were taken into account before the problem of ill health could arise. Public latrines and bath houses were common, Sadly, as we know, this basic knowledge and the benefits of hygiene and clean water were not passed down to medieval times.

Medicine in the Middle Ages and Medieval times was greatly influenced by the prolific writings of Galen who practised medicine in Rome. He was born around AD129 and trained initially as a student of the Asclepion cult. He went on to Alexandria, where at the time it was possible to study anatomy, and then returned around 157 as a doctor to the Gladiators. This gave him the opportunity to study the insides of the human body – through the wounds and he became famous for his showmanship, boastfulness and as doctor to the Emperor's son Commodus. You will remember Commodus starred with Russell Crowe in the Gladiator!.

After a while Galen turned to the standards of Hippocrates especially in the close observation of symptoms/. Galen too, believed in the theory of the four humours and developed many treatments based on the theory of opposites. A person with a cold he would prescribe pepper. If a man was weak Galen would prescribe vigorous exercise or gymnastics. Fortunately we learn much from his successes , he did not write of his failures, He was a prolific writer his works dealing with diagnosis and treatment, surgery, anatomy and physiology  
Middle Ages

Sadly the fall of Rome led to a severe decline in medical knowledge in the western world and during the ensuing dark ages medicine returned to treatment by superstition. Thankfully, however, much of the ancient knowledge and writings of Greece and Rome had been preserved in what we term today the Middle East. Travel at the turn of the second millennium had resurrected much. So by the time of the Crusades great progress was already underway in Europe in establishing formal medical training based on the classic forms of treatment. By the 11<sup>th</sup> Century Universities firstly at Salerno, then Paris, Bologna, Oxford Padua revived the study of medicine and production of medical texts and established treatments. By the 13<sup>th</sup> Century physicians were required to have studied for several years before they could practice. Unlike today Surgeons were regarded socially as being of a much lower status.

As can be imagined University trained Physicians were the elite of the medical profession in the Middle ages and Medieval times. They followed the practices laid down in the ancient world that I have outlined earlier. However few people other than the well off or the nobility had regular access. Physicians diagnosed their patients by close examination of their blood, urine and stools and thereby determined the complexion and balance of humours. They could prescribe medicines or bloodletting from various parts of the body to rectify the balance. Surprisingly even in these early times they could undertake complex operations like trepanation of the skull to relieve pressure on the brain or the removal of eye cataracts.

But, denied access to the trained professionals, it is not surprising that the poorer common folk turned to the lesser well trained and also placed reliance on folk remedies and superstition.

Who performed these duties?

Barber/Surgeons

Surgeons belonged to the working class and did the jobs that were considered beneath physicians, such as pulling teeth. Hernias, gallstones and caesarean section. I should add here that the study of Surgery in Medieval times is a paper in itself and sadly time prevents me dwelling on it today.

We had the Folk Healers/ Herbalists they passed on their knowledge from master to apprentice and were more accessible to the peasant or labourer. In some areas they were mostly women others always men. Often considered an inherited skill. Unregulated but knowledgeable on herbs and folk remedies.

### Leeches

Were lay practitioners whose training was more practical than theoretical. Practicing without proper education they relied more on informal observation and folk medicine. They may have served as an apprentice to a barber surgeon at some point

Monasteries. Following the dictates of St Benedict, virtually every monastery had an infirmary for monks and nuns and this led to the provision of care for the secular patients. We should not forget that it were the monks in earlier times had copied the works of Hippocrates, Galen and others and their general knowledge as such was very high. Some monks gained reputations as being highly skilled healers and were sought out by both religious and secular alike. The growing treatment of the secular in the monastic infirmaries led to the development of hospitals outside of the monastery walls.

Hospitals This general term in time encompassed hostels for travellers, dispensaries for poor relief, clinics and surgeries for the injured, homes for the blind, the lame elderly and the mentally ill. Patients were supposed to help each other through prayer and calm, benefiting as much from this as from any physical treatment

Dentatores were the dentists of the medieval period and were so expensive they like physicians were the preserve of the very rich. They removed decay which was believed to be caused by worms, and filled teeth with ground bone. Gold was used for filling cavities. They repaired loose teeth with metal bindings and made dentures from ox and other animal bones.

### Midwives

Were taught their duties by other midwives or were introduced into the craft by fathers or husbands who were medical men. However, the only formal requirement for becoming a midwife was a statement from the parish priest attesting to the applicant's good behaviour

We must not overlook the importance of pilgrimage. A prime teaching of the Church, of course, was that illness, infirmity, disfigurement etc were inflicted on sinners. From the advent of established church people have embarked on pilgrimages. People were told that a pilgrimage to a holy shrine to show your love of God would cure them of illnesses especially if you purchased the holy water sold at the place of pilgrimage. This did much to increase the wealth of the Church and the neighbouring City. Incidentally, at a time when most people kept to the confines of their native village pilgrimages could have the detrimental affect of spreading disease such as the plague. It is easy for the sceptic to laugh at the so called primitive beliefs of the pilgrims in miracles but we must not overlook the continuation of the practice to modern times. Lourdes being a

classic example and cures continue to be recorded. Some would say that the power of faith is all encompassing.

Let us turn now to the treatment of WOMEN.

The ailments of Women in medieval times were often considered by men as particularly mysterious.

Women's monthly cycle was considered by men in this light. The cycle was viewed not as a natural bodily process but as something more sinister. Because men lacked the understanding and therefore power it was viewed as suspicious and indeed their views date back to biblical times. Leviticus 15: 19-30

Pregnancy Testing was in its infancy (no pun intended). As Doctors did not analyze amniotic fluids the surest way to know if a woman was pregnant was to examine her urine. Or have her drink mead before she went to bed. If her stomach hurt when she woke up then she was pregnant. To determine the sex of the unborn ask her to stick out her hand. If she produced the right, the child would be a boy, if she produced the left a girl. If a drop of the mother's milk floated in spring water it was a girl if it sunk a boy.

#### Abortion

Unlike today, abortions in Middle Ages and Medieval times , although much sought after, were difficult to come by from the professionals. Doctors from the beginning, took an oath never to perform an abortion. Folk remedy allowed for a suppository comprising 1 drachma each of cardamom seeds, wallflower, myrrh and wormwood inserted while taking a warm bath and drinking a bottle of pennyroyal wine. So many cures and remedies involved getting blind drunk it seems to me that being unwell had its compensations in medieval times

Sadly, women often resorted to drinking deadly poisons and dangerous draughts to destroy the foetus in her womb. While this did kill the foetus it often also killed the woman. Which was unlikely to have been her goal.

Time passes on so

I thought I might just read a few of the established medieval cures or treatments in no particular order:

Anaesthetic: To make a man sleep while men operate on him; take the gall of a boar, 3 spoonfuls each of hemlock juice, wild briony, lettuce, opium poppy henbane vinegar. Mix them together boil them a little and put into a glass vessel, well stoppered. Add three spoonfuls of the mixture to a bottle of good wine or ale and mix well. The patient should drink the whole bottle by a warm fire where he will fall asleep and can be operated upon. When you want him to wake wash his face with a mixture of salt and vinegar.

I don't know about you but I find drinking a good bottle of wine in front of a warm fire will be enough to send me to sleep without the addition of the vile concoction suggested

Tooth ache- Root of pellitory,

Poor eyesight- add a drop of dew to the gall bladder of a nightingale caught before daybreak and anoint it to the eyelashes.

To enhance the flow of bile from the liver- dandelions

Burns, sprains and cramps- St John's Wort

Bee Stings- Waybread

Laxative- seeds of psyllium

Buttercups worn in a bag around the neck would cure insanity

An amulet of senna, mint and rue worn as a bracelet averted evil, as did primrose and convolvus as long as they were picked on 1<sup>st</sup> May

Woodbine cut on the waxing moon was made into hoops which were preserved until the following March. When children were ill they passed through the hoops three times to cure them.

St John's Wort was most effective for curing fever if found by accident on Midsummer's Eve.

Mustard and Garlic warded off the plague

Eating nettles mixed with the white of an egg cured insomnia

Heather boiled in water and applied to the top of the head cured a headache.

Cataracts were cured by drawing fresh water from a well taking care not to rest the basin on earth nor stone only wood. Add a gold or silver coin to the water, then three blades of grass and let seep. Pass the blades of grass across the eye, then pour the water from the basin into the eyes.

To cure ague swallow a spider wrapped in a raisin

To cure baldness rub goose droppings over the affected area.

To alleviate cramp tie an eel skin round the knee.

To cure a toothache touch a dead man's tooth or burn a candle close to the tooth and watch the worms gnawing the tooth drop out.

To make freckles disappear cover them with blood from a bull or hare, or use water distilled from crushed walnuts.

You may be thinking what a load of rubbish and superstition. Indeed, much of it was, but in establishing the usefulness of medieval medicines we need to clarify the similarity of yesterdays ailments with today's. Did the ancients for example suffer from cancer? Since Galen AD 129 good descriptions of these neoplasms have been recorded. In AD 50 a drug made from autumn crocus was advocated as being useful in the dissolving of pus filled tumours and growths. Today this same plant is considered as an anti tumour agent. Its use was recommended throughout medieval times and even today traditional modern medicine in Greece advocates the internal taking of the plant for cancer sufferers.

Another plant used was nightshade and is still used as a traditional medicine in non western countries. Another effective plant in the treatment of cancer in medieval times was the squirting cucumber. This same plant was used by medieval women as an effective contraceptive. One wonders what the overall incidence of cancer was in those who regularly used the plant.

2,000 years ago Galen recommended the use of Narcissus to clean up surface wounds, An extract of Narcissus is used today in modern chemotherapy.

What ABOUT Cabbage do I hear you cry?

2200 years ago Cato the elder advised cabbage could be used as a poultice on all kinds of wounds and swellings. An ulcerated breast and cancer could be healed by the application of a cabbage Some mothers who have had mastitis are on record asserting the effectiveness of a cabbage leaf on the breast to relieve the pain and cause milk to flow. Modern research is investigating the action of the components in cabbage in the body as prevention against cancer. Indeed In 1970 compounds in Cabbage were found to inhibit chemically introduced carcinomas in rats.

The list continues but the main thrust of these examples is to illustrate that some of today's chemo therapeutical agents were rediscovered without the benefit of history. William Stone suggested 90 years ago that the past was not completely filled with superstition and stupidities but contained experienced judgements about medicine. He was right.