

# ST ANTHONY'S FIRE

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In studying medicine, encounters with relics of the past in the shape of eponyms often make one stop and wonder as to the association between the medical syndrome or term concerned and the character recalled. It is even still more fascinating to investigate and ponder upon such a correlation when the individual immortalized does not happen to be a physician, surgeon, or alchemist of old, but a complete alien to the medical profession; in this case an ascetic, a saint: St. Anthony of Egypt! The close affinity of medicine and pathology to priests and ascetics is as old as man himself; man always sought supernatural aid in his sickness, when therapeutic aid was fruitless or not forthcoming, and the priest mediated his claims and supplications with the deity. With the advent of the Christian era and culture, this did not change, and the taumaturgical powers of various saints and holy men have been invoked in unnumbered diseases, plagues, and pestilences of man and beast alike.

'St. Anthony's Fire' has been found to be synonymous with at least three human ailments, namely: herpes zoster (shingles), erysipelas, and 'ergotism' (chronic ergot poisoning). A remarkable fact is that this name is applied popularly to the same three diseases wherever Christian culture has ventured. This close association of Anthony's name with these three well-defined and mutually unrelated diseases is worth investigating. Fortunately a biography of Anthony of Egypt is available in which the saint's association with fire is documented. A glance at the social and epidemiological history of centuries by-gone also shows why these diseases are specially put aside for Anthony's protection and intercession.

## ANTHONY OF EGYPT

Anthony's life is very well authenticated in Christian hagiology. He was born at about 250 A.D. at Comus (nowadays Qeman), a town lying on the west shore of the Nile in a district of Central Egypt then known as the Fayum, very near to where the city of Heracleopolis Magna (nowadays Bahr Yusuf) was situated. His parents were wealthy merchants, devoted to the Christian way of life. At their death, when Anthony was about 20 years of

age, he left his home after following the evangelical exhortation to the letter, and took to a secluded way of life, deprived of all the world had to offer him. He inhabited some ancient Egyptian tombs, a few miles away from his native town. Later he crossed the Nile and lived in an abandoned fort on a mountain on the east bank of the Nile at the site then known as Pispir and nowadays as Der el Memun. He stayed here for about 15 years, and during this time a number of disciples had gathered around him imitating his ascetic way of life. Following a brief return to civilisation in order to denounce and combat the anti-Christian persecutions then rampant and to preach against the Arian schism, he returned to the desert, and lived on another mountain, situated in between the Nile and the Red Sea and still known to this day as Der Mar Antonios, to the ripe age of 105 years. He died round about the year 356 A.D. According to tradition his relics were discovered and transferred by his followers in the ninth or tenth century to St. Didieu-de-la-Motte in France and later to St. Junien, a town on the Vienne River, lying north of Limoges. It was here that in 1046 the first of a number of Antonian Societies was founded.

All that is known of Anthony's life comes to us from a lengthy biography of his life written in Greek a year after his death by St. Athanasius of Alexandria (297-373). Later this was translated into Latin by the renowned ecclesiastic historian, Evagrius, bishop of Antioch (536-600). This became widely known throughout the years as the "**Vita Antonii**". Both St. Augustine of Hippo (354-430) and St. Jerome of Bethlehem (340-420) were conversant with Anthony's life history, and mention of it is found in their writings that have come down to us. In Book VIII of his '**Confessiones**', Augustine speaks with Nebridius, his friend, 'on Anthony the Egyptian monk'. Secondary less authentic and historical sources are the **APOPHTHEGMATA**, the writings of Johannes Cassian, the fifth century French monk, and **Palladius**' '**Historia Lausiaca**'

About twenty epistles in the Coptic and Arabic tongue, and various other written sermons and discourses have been attributed to Anthony. Most of these writings have been

classified downright as apochryphal. In St. Athanasius' biography, Anthony pronounces a lengthy discourse in exhortation of his colleagues. This deals mainly with the duties of spiritual life with special reference to the struggle against evil and warfare against the devil and his doings.

#### **FIRE AND ANTHONY THE HERMIT**

The saint is hailed as the founder of Christian monasticism and ascetism to this very day. A salient feature in his life as a hermit was his constant struggle against the powers of evil. The devil tried Anthony's deep-seated devotion by herculean tribulations, temptations and physical suffering especially during his earlier years of stay in secluded life. He appeared to him in the guise of fierce wild beasts and as evanescent female shapes.

Anthony's battles with the devil inspired and fired the popular cult that grew around his name, first in the oriental churches and later in the Roman church. His miraculous powers and his mighty intercession against the penal fire of hell were sought and invoked. With the greatest probability this was the reason why his aid was sought in ailments where severe burning pain, to such an extent that it resembled hell's torments and fire, was the presenting symptom, remembering that sickness was then still regarded as a punishment for a serious misdemeanour and sin.

#### **ANTHONY IN FOLKLORE AND ART**

Part of his early cult was also probably a Christian adulteration and substitution of the Cult of Prometheus, the Titan who stole fire from Heaven's boss Jupiter to donate it to man. In fact as part of the folklore around his feast huge bonfires were lighted in his honour. Large quantities of wood were gathered collectively by the villagers or town-folk, piled and burnt on January 16th, the eve of his feast. These bonfires were so large as to go on burning for days on end. Portions of the charred wood that were left were conserved as religious objects said to protect against the devil and his doings, and against the diseases known after Anthony's name. Such bonfires are still being lighted as part of the festivities in his honour in certain French villages.

The saint and his colourful temptations by the devil have been the object of numerous works of art. St. Anthony is often depicted as an old man, with a long beard, with or without a cowl, often holding in his hand a hermit's staff in the shape of a T, with a bell hanging from it and with a pig by his side

(the latter being both privileges of the pious Antonian orders founded in the eleventh century in France). The torch or a flame relating to his taumaturgical powers over disease is also often seen. Gustave Flaubert (1821-80), the French writer, has also written a novel relating to Anthony's temptations entitled 'La Tentation de Saint Antoine'.

#### **SHINGLES OR HERPES ZOSTER**

Herpes zoster (GK: Herpein — to cover, zoster — girdle) or shingles is well-known to be characterised by excruciating, burning pain before, during and at times for months after the actual appearance of a vesicular eruption along the course of a peripheral cutaneous nerve, usually the intercostal. Modern therapeutics can do very little even at this day and age for the relief of such pain. Centuries ago the relief of such a condition may have been somewhat worse. Another alarming feature of the disease was that it also occurred in small outbreaks often associated with epidemics of chicken-pox in children, and in years gone by any sort of catching disease was the Plague. It is no surprise that Anthony's miraculous aid in this disease of fire was implored and accredited with cures.

#### **ERYSIPELAS**

Eryipelas (Gk: erythros — red; pella — skin) is another disease characterised by very marked inflammatory symptoms and a severe, infernal, throbbing and burning pain in the affected part of the body. This disease was of grave importance when it affected the face; it was also known to be contagious. In aging, undernourished, and debilitated persons as well as in puerperal mothers, the condition was more often than not fatal. Nowadays though the disease is still serious, the advent of penicillin and other antibiotics has greatly detracted from its fatalities; its causative organism, streptococcus pyogenes has been isolated and defeated. Again the reason for seeking Anthony's intercession can easily be surmised recalling that the condition abounded in areas of misery, poverty and famine.

#### **ERGOTISM**

The association of St. Anthony with ergotism or chronic ergot poisoning is still more fascinating. Ergot (Fr: spur) or 'Claviceps purpurea' is a fungus that attacks the flowers of cereal plants (Graminaceae) to such an extent that what should have been an ear of grain is replaced by a hard spur-like outgrowth. This parasitic fungus, that grows especially on rye, contains a series of alkaloids and other active principles. The most important alka-

loids it contains are ergosine, ergocristine, ergotoxine, ergometrine and ergotamine. Such organic compounds as tyramine, histamine, acetylcholine, betaine and sapotoxin are also found. This fungus particularly flourishes whenever a spell of sunny weather follows the rainy period, just before the harvest. The cereal plants that are infested with the fungus are poisonous to animals and man. Cattle consuming such grain show marked degrees of poisoning, a common feature being spontaneous abortions. The fungus is also often ground up with the grain as its size is not such as to allow removal with the ordinary winnowing process. The bread that is baked from such flour is also extremely poisonous.

These alkaloids have a stimulating effect on smooth muscle and an adrenergic blocking action. Therefore if taken over a lengthy period of time arteriolar contraction occurs leading to ischaemic gangrene of various parts of the body mainly the extremities. Focal or massive gangrene of internal organs has also been reported. Cataract of the crystalline lens also occurs. The peripheral nervous system is also affected in chronic ergot poisoning. The first manifestations of the poison are intense burning pain throughout the body, itching and a sensation of insects crawling over the skin. The central nervous system is also involved; acute organic psychotic states associated with delirium and hallucinations have been described and may constitute the presenting symptom of this syndrome. A common delusion described in such states is that the patient feels that he is being consumed by flames. This symptom has given to the disease the name of 'Mal des Ardents'.

From a review of the nervous manifestations of this form of poisoning, it is no surprise that ergotism and St. Anthony's fire can be synonymous. It must also be remembered that ergotism occurred in epidemic form thus constituting yet a more serious disease.

#### EPIDEMICS OF ERGOTISM

An epidemic of 'Holy Fire' is recorded as far back as 1039 when, during the siege of the city of Lorraine, all classes of society were affected by this form of poisoning as second-rate flour had to be consumed because of inadequate supplies. The epidemic that broke out was considered as a sign of divine wrath for breaking God's truce that fighting had only to be conducted on the appointed days, namely Mondays, Tuesdays and Wednesdays. With the foundation of the Antonian society, St. Anthony came to be regarded as the patron-protector of this illness. A popular mecca of Anthony's veneration was his shrine at Dauphine

in France whither numerous pilgrims convened from all over the countryside. St Hugh of Avalon, bishop of Lincoln, visited this shrine in the early thirteenth century and his private chaplain recorded for posterity the fact that sufferers from the Holy Fire either died within a week or were miraculously cured within the same time period by the saint, notwithstanding the loss of their limbs. It may be interesting to add here that numerous inns and hostels were run by the Antonian order around the saint's shrine, care being taken to treat the pilgrims as well as possible. It has also been shown that spontaneous cure from this form of poisoning occurs if ergot is withdrawn from the patients' diet.

Epidemics also occurred amongst the peasantry in Germany. In 1597, the Medical Faculty of Marburg recommended that fresh eggs and dairy-fresh butter be taken as a form of prevention against the disease. It is now known that hypovitaminosis A is often found in cases where the nervous manifestations of ergotism are more prominent. The physicians of Marburg were also the first to describe the disease scientifically. It is recorded how "the cries of the sufferers could be heard in the villages beyond the eight and tenth house and well off into the fields."

In 1722 two forms of the disease were described; a gangrenous form that was the commoner and presented as gangrene of the extremities, and a convulsive form characterized by twitchings of muscles, spasms and cramps in the limbs with complete loss of the ability of flexion in the limbs. The latter form occurred in the lowest strata of society during epidemics — a deficiency of Vitamin A is often associated. The two forms of the ailment often occurred simultaneously. It was interesting to note that in Germany on the left bank of the Rhine where the rich pasturelands and the dairy farms were, only the gangrenous form of the disease occurred. On the right bank and in Hanover only the convulsive form of the disease was prevalent.

The disease was also prevalent among the Russian farmers. Campredon, the French ambassador to the court of Russia, in his dispatch of the 29th January, 1723, writes: 'Already 20,000 people have died in the neighbourhood of Nijny. At first they thought it was the plague, but the doctors who were sent there after having made a careful examination reported that it was not an infectious disease, but that it arose from bad grain which the people had eaten. The grain is reddish and looks very much like having been spoiled by venomous fogs. As soon as the people had eaten the bread they became stupefied with a



great contraction of nerves, so that those that do not die on the same day, lose their hands and feet. They fall off in the same way as they do in the country when hands and feet are frozen. None of the remedies which are used in infectious diseases do any good to those affected, and only those escape who have had good food and had eaten other bread." Medieval chroniclers report similar epidemics in France and Germany; only one epidemic of this nature was reported in Great Britain. This occurred in Watisham in Suffolk in 1762.

In 1676, Dodart in France identified ergot as the cause of the gangrene and nineteen years later, in 1695, Brünner inculcated the same poison as the cause of the convulsive form of the disease.

Only three epidemics are on record for the current century. One occurred in Manchester in 1928 amongst the community of 200 refugee Jews. The other occurred at the small provincial village of Pont St Esprit in France, in 1951, where 200 of the 4,000 villagers and most of the animals were affected. The latter epidemic was mainly characterised by central ner-

vous system complaints, and delirium was a common mode of presentation. The medieval description of the disease as 'old and young men frantic in the streets and others lying writhing in their beds' was really apt. Another outbreak involving 10,000 people occurred in Russia in 1926-7.

#### TO CONCLUDE

writhing in the beds' was really apt. Another

The mystery surrounding numerous diseases, and the charm involving their cure have now been broken. Erysipelas and herpes zoster are both known to be caused by micro-organisms, and ergotism by the poisons from a fungus. However St Anthony's name still persists in medical texts — perhaps as a reminder of a former, less materialistic and sophisticated society which could believe in yet another life beyond, or as a sad token of a poorer, ignorant, undernourished stratum of society where the only possibility of a cure in its illness stood not with man, his medicines and ministrations below but with something above that knew no class boundaries or distinctions.