= History of poison =

The history of poison stretches from before 4500 BC to the present day . Poisons have been used for many purposes across the span of human existence , most commonly as weapons , anti @-@ venoms , and medicines . Poison has allowed much progress in branches , toxicology , and technology , among other sciences .

Poison was discovered in ancient times , and was used by ancient tribes and civilizations as a hunting tool to quicken and ensure the death of their prey or enemies . This use of poison grew more advanced , and many of these ancient peoples began forging weapons designed specifically for poison enhancement . Later in history , particularly at the time of the Roman Empire , one of the more prevalent uses was assassination . As early as 331 BC , poisonings executed at the dinner table or in drinks were reported , and the practice became a common occurrence . The use of fatal substances was seen among every social class ; even the nobility would often use it to dispose of unwanted political or economic opponents .

In Medieval Europe , poison became a more popular form of killing , though cures surfaced for many of the more widely known poisons . This was stimulated by the increased availability of poisons ; shops known as apothecaries , selling various medicinal wares , were open to the public , and from there , substances that were traditionally used for curative purposes were employed for more sinister ends . At approximately the same time , in the Middle East , Arabs developed a form of arsenic that is odorless and transparent , making the poison difficult to detect . This " poison epidemic " was also prevalent in parts of Asia at this time , as well .

Over the centuries , the variety of harmful uses of poisons continued to increase . The means for curing these poisons also advanced in parallel . In the modern world , intentional poisoning is less common than the Middle Ages . Rather , the more common concern is the risk of accidental poisoning from everyday substances and products .

Constructive uses for poisons have increased considerably in the modern world . Poisons are now used as pesticides , disinfectants , cleaning solutions , and preservatives . Nonetheless , poison continues to be used as a hunting tool in remote parts of developing countries , including Africa , South America , and Asia .

= = Origins of poison = =

Archaeological findings prove that while ancient mankind used conventional weapons such as axes and clubs , and later swords , they sought more subtle , destructive means of causing death ? something that could be achieved through poison . Grooves for storing or holding poisons such as tubocurarine have been plainly found in their hunting weapons and tools , showing that early humans had discovered poisons of varying potency and applied them to their weapons . Some speculate that this use and existence of these strange and noxious substances was kept secret within the more important and higher @-@ ranked members of a tribe or clan , and were seen as emblems of a greater power . This may have also given birth to the concept of the stereotypical " medicine man " or " witch doctor " .

Once the use and danger of poison was realized , it became apparent that something had to be done . Mithridates VI , King of Pontus (an ancient Hellenistic state of northern Anatolia) , from around 114 ? 63 BC , lived in constant fear of being assassinated through poison . He became a hard @-@ working pioneer in the search for a cure for poisons . In his position of power , he was able to test poisons on criminals facing execution , and then if there was a possible antidote . He was paranoid to the point that he administered daily amounts of poisons in an attempt to make himself immune to as many poisons as he could . Eventually , he discovered a formula that combined small portions of dozens of the best @-@ known herbal remedies of the time , which he named Mithridatium . This was kept secret until his kingdom was invaded by Pompey the Great , who took it back to Rome . After being defeated by Pompey , Mithridates ' antidote prescriptions and notes of medicinal plants were taken by the Romans and translated into Latin .

Pliny the Elder describes over 7000 different poisons . One he describes as " The blood of a duck

found in a certain district of Pontus , which was supposed to live on poisonous food , and the blood of this duck was afterwards used in the preparation of the Mithridatum , because it fed on poisonous plants and suffered no harm . "

= = = India = = =

Indian surgeon Sushruta defined the stages of slow poisoning and the remedies of slow poisoning . He also mentions antidotes and the use of traditional substances to counter the effects of poisoning .

Poisoned weapons were used in ancient India , and war tactics in ancient India have references to poison . A verse in Sanskrit reads " Jalam visravayet sarmavamavisravyam ca dusayet , " which translates to " Waters of wells were to be mixed with poison and thus polluted . "

Ch?nakya (c . 350 ? 283 BC) , also known as Kautilya , was adviser and prime minister to the first Maurya Emperor Chandragupta (c . 340 ? 293 BC) . Kautilya suggested employing means such as seduction , secret use of weapons , and poison for political gain . He also urged detailed precautions against assassination ? tasters for food and elaborate ways to detect poison . In addition , the death penalty for violations of royal decrees was frequently administered through the use of poison .

= = = Egypt = = =

Unlike many civilizations , records of Egyptian knowledge and use of poisons can only be dated back to approximately 300 BC . However , it is believed that the earliest known Egyptian pharaoh , Menes , studied the properties of poisonous plants and venoms , according to early records .

The Egyptians are also thought to have come into knowledge about elements such as antimony , copper , crude arsenic , lead , opium , and mandrake (among others) which are mentioned in papyri . Egyptians are now thought to be the first to master distillation , and to manipulate the poison that can be retrieved from apricot kernels .

Cleopatra is said to have poisoned herself with an asp after hearing of Marc Antony 's demise . Prior to her death , she was said to have sent many of her maidservants to act as guinea pigs to test different poisons , including belladonna , henbane , and the strychnine tree 's seed .

After this , the alchemist Agathodaemon (around AD 300) spoke of a mineral that when mixed with natron produced a ' fiery poison ' . He described this poison as ' disappearing in water ' , giving a clear solution . Emsley speculates that the ' fiery poison ' was arsenic trioxide , the unidentified mineral having to have been either realgar or orpiment , due to the relation between the unidentified mineral and his other writings .

= = = Rome = = =

In Roman times , poisoning carried out at the dinner table or common eating or drinking area was not unheard of , or even uncommon , and was happening as early as 331 BC . These poisonings would have been used for self @-@ advantageous reasons in every class of the social order . The writer Livy describes the poisoning of members of the upper class and nobles of Rome , and Roman emperor Nero is known to have favored the use of poisons on his relatives , even hiring a personal poisoner . His preferred poison was said to be cyanide .

Nero 's predecessor , Claudius , was allegedly poisoned with mushrooms or alternatively poison herbs . However , accounts of the way Claudius died vary greatly . Halotus , his taster , Xenophon , his doctor , and the infamous poisoner Locusta have all been accused of possibly being the administrator of the fatal substance , but Agrippina , his final wife , is considered to be the most likely to have arranged his murder and may have even administered the poison herself . Some report that he died after prolonged suffering following a single dose at his evening meal , while some say that he recovered somewhat , only to be poisoned once more by a feather dipped in poison which was pushed down his throat under the pretense of helping him to vomit , or by poisoned gruel or an enema . Agrippina is considered to be the murderer , because she was ambitious for her son , Nero

, and Claudius had become suspicious of her intrigues .

= = Later imperial Asia = =

Despite the negative effects of poison , which were so evident in these times , cures were being found in poison , even at such a time where it was hated by the most of the general public . An example can be found in the works of Iranian born Persian physician , philosopher , and scholar Rhazes , writer of Secret of Secrets , which was a long list of chemical compounds , minerals and appratus , the first man to distil alcohol and use it as an anti @-@ septic , and the person who suggested mercury be used as a laxative . He made discoveries relating to a mercury chloride called corrosive sublimate . An ointment derived from this sublimate was used to cure what Rhazes described as ' the itch ' , which is now referred to as scabies . This proved an effective treatment because of mercury 's poisonous nature and ability to penetrate the skin , allowing it to eliminate the disease and the itch .

In India , the troubled 14th and 15th centuries in Rajasthan saw invasions in the Rajput heartlands . Rajput women practiced a custom of jauhar (literally the taking of life) when their sons , brothers , or husbands faced certain death in battle . Jauhar was practiced within the Kshatriya warrior class to avoid the fate of subservience , slavery , rape , or slaughter at the hands of the invading forces .

= = = Nazi suicides by poison = = =

Nazi war leader Hermann Göring used cyanide to kill himself the night before he was supposed to be hanged during the Nuremberg Trials . Adolf Hitler had also taken a pill of cyanide but he bit down on the capsule and shot himself in the right temple shortly before the fall of Berlin along with his wife , Eva Braun .

= = Present day = =

In the late 20th century , an increasing number of products used for everyday life proved to be poisonous . The risk of being poisoned nowadays lies more in the accidental factor , where poison be induced or taken by accident . Poisoning is the 4th most common cause of death within young people . Accidental ingestions are most common in children less than 5 years old .

However , hospital and emergency facilities are much enhanced compared to the first half of the 20th century and before , and antidotes are more available . Antidotes have been found for many poisons , and the antidotes for some of the most commonly known poisons are shown in the table above :

However , poison still exists as a murderous entity today , but it is not as popular form of conducting murder as it used to be in past times , probably because of the wider range of ways to kill people and other factors that must be taken into consideration . One of the more recent deaths by poisoning was that of Russian dissident Alexander Litvinenko in 2006 from lethal polonium @-@ 210 radiation poisoning .

= = = Other uses = = =

Today , poison is used for a wider variety of purposes than it used to be . For example , poison can be used to rid an unwanted infestation by pests or to kill weeds . Such chemicals , known as pesticides , have been known to be used in some form since about 2500 BC . However , the use of pesticides has increased staggeringly from 1950 , and presently approximately 2 @.@ 5 million tons of industrial pesticides are used each year . Other poisons can also be used to preserve foods and building material .

= = = In culture = = =

Today , in many developing peoples of countries such as certain parts of Africa , South America and Asia , the use of poison as an actual weapon of hunting and attack still endures .

In Africa , certain arrow poisons are made using floral ingredients , such as of that taken from the plant Acokanthera . This plant contains ouabain , which is a cardiac glycoside , oleander , and milkweeds . Poisoned arrows are also still used in the jungle areas of Assam , Burma and Malaysia . The ingredients for the creation of these poisons are mainly extracted from plants of the Antiaris , Strychnos and Strophanthus genera , and Antiaris toxicaria (a tree of the mulberry and breadfruit family) , for example , is used in the Java island of Indonesia , as well as several of its surrounding islands . The juice or liquid extracts are smeared on the head of the arrow , and inflicts the target paralysis , convulsions and / or cardiac arrest , virtually on strike due to the speed in which the extracts can affect a victim .

As well as plant based poisons , there are others that are made that are based on animals . For example , the larva or pupae of a beetle genus of the Northern Kalahari Desert is used to create a slow @-@ acting poison that can be quite useful when hunting . The beetle itself is applied to the arrow head , by squeezing the contents of the beetle right onto the head . Plant sap is then mixed and serves as an adhesive . However , instead of the plant sap , a powder made from the dead , eviscerated larva can be used .