

Presidential Address

"A Glass a Day Keeps the Doctor..."

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I WOULD LIKE TO DEPART from tradition today and not discuss real or perceived clouds on the medical horizon, but rather take you with me on a journey over the past forty centuries. A number of years ago, my wife, sensing the approach of my middle years with its various attendant crises, convinced me that I required a hobby that I could grow old with. I turned to wine collecting and began to read a few books and wine journals, with the result that today I have learned a bit about the origins of wine, the making of wine, and the historic role of wine in health, a subject I would like to share with you today. Obviously, the accomplishments of many prominent figures in medical history cannot all be listed here, but I have selected representatives from each era in the belief that, as they are all dead, none can take offense at his exclusion.

For many centuries, healing the sick was the prerogative of priests and magicians, and therefore more a religious practice accompanied by chants and incantations. For about 18 centuries spanning the Sumerian, Babylonian, Egyptian, early Greek and Hebrew civilizations, wine and medicine were intertwined with religion and magic and not until the Greek physician Hippocrates dissociated science from magic and rejected the concept of the divine or supernatural theory of disease, did medicine become an independent profession. However, the concept of the use of wine as medicine ebbed and flowed over these years. Many Greek physicians refused to use it therapeutically, but during the Roman and Byzantine

periods, it was virtually impossible to find a prescription in which the administration of wine was not a component. Following this, however, came centuries of Arabic influence, in which the use of wine, forbidden by the Koran, was severely curtailed. Lastly, in Europe, from medieval times through the 19th century, wine was used frequently and effectively for everything from the treatment of war wounds to malaria.

Wine in Ancient Egypt

Perhaps the first written recorded use of wine as medicine was in Sumeria, near Babylon, in which salves were mixed with wine to treat various skin conditions. This so-called Nippur tablet (over 2,000 years B.C.), named after the city in which it was found, can be seen today at the Museum of the University of Pennsylvania. Around 1,500 B.C., various medical papyruses advocated wine as the primary treatment for asthma, constipation, epilepsy, indigestion, jaundice and depression. However, Egyptian physicians at this time had a certain business interest in their prescriptions and so, in order to prevent self-medication, they added a variety of bizarre and allegedly essential ingredients, such as pig eyes, bat blood, dog urine or crocodile dung. One can only suspect that these potions achieved their stated goal and that few patients would have treated themselves with such remedies.

It is said that Moses, reared in the Palace of the Pharaoh, was very learned in Egyptian medicine, and both the Old Testament and the books of the Talmud (500 B.C.-400 A.D.) explore and document many medicinal or aphrodisiacal uses for wine. Indeed, in the Talmud, it is stated "wine is the foremost of all medicines; wherever wine is lacking, medicines become necessary."

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Wine in Ancient India (2,500 to 200 B.C.)

Medicine in ancient India antedated that of Greece and developed independently of that in Egypt and Mesopotamia. Therefore, the use of wine by the Hindus represents an isolated chapter in the history of wine as medicine. Surprisingly, many of the recommendations in the Rig-Veda are quite similar to those in ancient Egypt even though it is most unlikely the practitioners knew of each other's teachings. This universal cross-cultural use of wine in ancient times represents one of the strongest justifications for regarding wine as beneficial for health, as it seems unlikely that so many different cultures would have praised the virtues of wine if it had little observable effect.

Medicine in Early Greece

The treatments of Hippocrates (app. 460-370 B.C.) were for the first time based on rational observations of the response of illness to treatment. He incorporated wine into the treatment regimens for most acute and chronic diseases, recommending it as a wound dressing to prevent suppuration, as a dietary supplement when cachexia was present, as a diuretic or purgative and as an agent to reduce fever. He described the various effects of the different wines and directed their uses for specific conditions. In treating war wounds, he admonished against putting any other substances into the wound, to guard against poor healing, a concept ultimately embraced by Paré 2,000 years later. He especially recommended the liberal use of wine during convalescence when depression was frequent. Homer, who wrote of the Trojan wars in the *Iliad* and *Odyssey* (app. 850 B.C.), stressed the local and systemic value of wine in treating patients with war wounds. Other Greeks of the time, such as Socrates, Plato and Aristotle, all extolled the consumption of wine as important for health. Plato especially recommended that wine be avoided by judges and those who were about to procreate, but especially recommended it for old men "to lighten the sourness of old age."

Wine in Graeco-Roman Times

With the destruction of Corinth in 146 B.C., the preeminence of Athens and Alexandria in medicine faded, and many Greek physicians emigrated to Rome as the new cultural center of the civilized world. Asclepiades (124-40 B.C.), one of the foremost physicians of his time and physician to Cicero, elevated Greek medicine in the eyes of the Romans with his therapeutics based on diet restriction, exercise and the

prescription of wine, eminently sound recommendations 2,000 years later.

Celsus (25 B.C.-37 A.D.) authored eight books on disease that were lost until they were rediscovered in the 15th century by Pope Nicholas V, the founder of the Vatican library. Celsus compiled all of the major Greek medical writings and, for the first time, recorded different types of wine for different maladies. He wrote of the differing properties of young versus old wines, resinated versus unfermented wines, and sweet versus dry wines, and he attempted to individualize each for various ailments: light, dry wines for stomach ailments; full bodied wines for nervousness; salted wines to induce purgation in cases of jaundice.

Dioscorides (app. 80 A.D.), army surgeon to Nero, has been called the founder of *materia medica* and described hundreds of substances with alleged therapeutic value. This exerted a profound influence on physicians and pharmacists for the next sixteen centuries. He too prescribed a variety of wines and is said to have been the first to utilize wine for anesthesia, this nearly eighteen centuries before the introduction of ether in 1846. Prior to that time, patients were bound down, gagged, and swift operations carried out. Dioscorides induced a stuporous state in his patients with mandragora wine and, for good measure, also cauterized their wounds with it.

This knowledge evidently found its way into the New Testament in the recitation by St. Luke, a Greek physician of Antioch, who in Luke 10:30-37 recounts the story of the good samaritan who found a nearly dead victim of an assault by thieves and "bound up his wounds, pouring thereon wine and oil, and mounting him upon his own beast, he brought him to a hostel and took care of him."

The greatest Greek physician after Hippocrates was Galen (131-201 A.D.). While serving as physician to the gladiators, he made the observation that wounds treated with wine did not putrefy, and that when evisceration occurred, bathing the bowels in wine before replacement into the abdomen would prevent peritonitis. Galen's system of medicine was so organized and comprehensive that it ruled European medicine until modern times, and his elaborate list of vegetable drugs, mostly compounded with wine, are even today called galenicals.

Medicine in Western Europe

With the collapse of Rome and the subsequent Dark Ages, the Church became the center of healing in western Europe. Wars and famines abounded, experimentation was suppressed, and faith in the Church as the sole source of healing was mandatory.

Charlatans flourished with their incantations and superstitions and medical treatments and surgery virtually ceased; not surprisingly, the endurance of pain was extolled by the Church as the highest of human virtues during this period. Unfortunately, although faith was essential and miracles universally sought, the most common result in this era of superstition was a relentless progression of disease and misery, ofttime leading to calls for the death of the failed healer, who, more likely than not, was of the itinerant variety and had already exited before the results of his therapeutics could be fully assessed. Gradually, the monastery-hospitals were replaced by schools with both clerical and lay teachers. One of the earliest of these was the school at Salerno which, interestingly, was open to women. The most famous of these was Trotula (11th century) who wrote numerous books on hygiene and obstetrics and extolled the usefulness of wine in disorders ranging from uterine prolapse to croup.

One of the greatest surgeons of the Middle Ages was Ambroise Paré (1510-1590), the French battle surgeon who courageously abandoned the treatment of wounds with hot pokers and boiling oil in favor of rose oil, egg yolk and other ointments compounded in wine. Prior to this time, pus was considered to be "laudable" (desirable) and this belief had consigned tens of thousands of wounded soldiers to slow painful deaths over the preceding centuries from the effects of wound sepsis, gas gangrene or tetanus. Paré's treatments, almost overnight, decreased the number of deaths from wound suppuration and paved the way for Listerian antiseptics 300 years later.

From the 17th to 19th centuries in Europe, the use of most medicines was more art than science, and the prescription of wine as a therapeutic agent was nearly universal as an appetite stimulant, diuretic, sedative and overall contributor to a state of physical and emotional well-being. The first London Pharmacopoeia was published in 1618 and listed numerous medicated wines; others quickly followed, most notably the French in 1840 which listed 164 different wine mixtures, including wines mixed with ginseng, mustard, rhubarb and saffron.

Wine in the United States

The first U.S. Pharmacopoeia in 1820 listed only nine wine mixtures, including iron, ipecac, opium and tobacco. Numerous revisions and additions followed but all were doomed by the hatchet of Carry Nation whose saloon-smashing exploits ultimately led to the passage of the 18th Amendment to the Constitution in 1920. Prohibition was born, and all wines were

dropped from the U.S. Pharmacopoeia. Conventional wisdom at that time, in complete disregard of thousands of years of experience, stated that all effects of wine were due to its alcohol content alone. However, the law still permitted the manufacture of alcoholic beverages for medicinal uses, giving rise to millions of "prescriptions" for these beverages, despite the insertion of compounds designed to make them thoroughly unpalatable. Likewise, it was legal to utilize wine for religious and ritual purposes, a practice of the Jewish faith for thousands of years. During the years of prohibition, thousands of born-again rabbis were ordained whose sole intent was to dispense wine to an ever-enlarging flock. In 1933, the folly came to an end, but never again was wine to be reinserted into our Pharmacopoeia. In the current century, tens of thousands of drugs have appeared, each one accompanied by extensive laboratory and clinical data attesting to its efficacy. Wines, of course, have suffered by comparison, as no "scientific proof" of this efficacy could be produced, despite the usage and testimonials of many of the greatest scientists and scholars of the past 4,000 years.

Today, this is all changing, as carefully conducted studies are being reported, documenting the beneficial effects of wine (not alcohol) on upper and lower G.I. function, the cardiovascular, renal and neurologic systems. Among the more prominent of these are studies indicating the following effects in regular moderate wine drinkers.

1. A decrease in the number of heart attacks and deaths secondary to cardiovascular disease.
2. A decrease in the frequency of angina and leg claudication.
3. An increase in appetite with protein sparing and improved nitrogen balance in cachectic patients.
4. Alterations in lower G.I. function with improved bowel movements or colostomy emptying.
5. A decreased secretion of antidiuretic hormone (ADH) promoting diuresis in patients with excess fluid.
6. An increased sense of well-being and a decreased need for psychotropic medications among elderly patients.

In closing, I wish to thank the membership of the Midwest Surgical Association for the honor of electing me President, of serving you over the past year, and for the privilege of presenting this address. Those of you who came here today hoping to hear the latest solutions to the current medical scene will no doubt be disappointed; likewise, to those scientists among you, I would hope you are not too offended by this foray into the past, pointing out that a glass a day can indeed keep the doctor.