## PROBLEMS OF THE AUTOPSY IN 1670 A.D.

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In recent years the medical and medicolegal literature has contained much discussion about the autopsy, its value, its acceptance among laymen and physicians, and various collateral and corollary issues. Very little of this is new.

In 1670 a German medical society, the Academia Naturae Curiosorum, started to publish its famous periodical, the *Miscellanea Curiosa sive Ephemeridum Medico-Physicarum*, commonly and concisely known as the *Ephemerides*. The very first volume contains a brief article in which one Georgius Segerus describes the dissection of a 12-year-old boy who had died of phthisis. The autopsy was incomplete because a female relative—who was evidently a 17th century battleaxe, if not a halberd—changed her mind and overrode the permission that had been obtained from the child's father. The physician concluded his concise report with the plaintive statement that in his part of the world autopsies were rarely permitted.

These difficulties stimulated Philippus Jacobus Sachsius à Lewenheimb, editor of the *Ephemerides*, to append a scholium or comment which is approximately six times as long as the note by Segerus. The comment of Sachsius is of value to the modern reader.

To begin with, Sachsius disposes of superstitious objections to the autopsy common in his day and in ours. He points out that eminent personages such as royalty were regularly autopsied in ancient Egypt and that the custom was adopted in Christian countries.

He then emphasizes the contribution of Wepfer, who worked in Schaffhausen, about 40 km. north of Zurich. Wepfer, by permission of governmental authorities, had succeeded in establishing a system of routine autopsy permissions. This had assured him and his associates of a rather large supply of cadavers and had eventuated in his important discovery that apoplexy is caused by a lesion of the brain. As might be expected, the physicians of Schaffhausen had also made a host of other anatomical observations.

After according primacy to Wepfer for his officially sponsored sys-

tem, Sachsius then gives what is in effect a rapid review of the large collections of autopsy records that had already been published. The list includes the contributions of Ballonius, Bartholinus, Paaw, Bontius, Chiffletius, Faber, Castellus, and others. Concluding his instructive survey, Sachsius again points out that the great achievement of Wepfer was due to routine governmental permission. This fact should be pondered carefully by those who are interested in restoring the autopsy to its place in medicine. Especially the legal implications will call for highly expert study.

## THE REPORT BY SEGERUS AND THE SCHOLIUM BY SACHSIUS<sup>1</sup>

The dissection of a phthisical boy, by Dr. Georgius Segerus. In December 1666 a noble youth about 12 years old, the only son of a high-ranking official of the city of Thurn, died of phthisis after an illness of many weeks' duration. By permission of his eminent father I examined the boy's internal organs. When the chest was opened the mediastinum appeared putrefied and broken up. The white lung swarmed with innumerable pustules; when these were cut apart, they exuded thick pus. In the pericardium there were more than 12 spoonfuls of citrinous water. The heart appeared flaccid and altogether empty of blood. When the abdomen was opened, the liver and spleen appeared to be unusually pale and a great many white pustules were seen which when incised resembled the substance of glands. The intestine was distended by flatus only and had innumerable livid and pale spots.

The other structures could not be examined, because a female relative changed her mind. Our people have a great horror of autopsies and very rarely allow them unless special persuasion has been used.

Comment [by Philippus Jacobus à Lewenheimb, editor of the Ephemerides]. The eminent Segerus complains of the difficulty of procuring the cadavers of those who have died of disease and of exploring the frequently hidden causes of symptoms. This is a common evil in Germany, as is the complaint that some are too frequently overscrupu-

Segerus, G.: De Phthisici Pueri Anatome. Miscellanea Curiosa sive Ephemeridum Medico-Physicarum Germanicarum Academiae Naturae Curiosorum, Decuriae I, Annus Primus Anni MDCLXX, 2d ed. Frankfurt and Leipzig, Fritsch and Gleditsch, 1684, pp. 53-56.

lous with regard to the dead; yet the genuine cause is found more often than the rational physician, using guesswork, can certainly reach it in the living patient, and in many other patients lost health can therefore be restored more easily. Some of the people may shout that those who have died of disease should not be tortured after death. Others may object that human cadavers should not be slashed and torn apart, since the rite of burial is considered sacrosanct among almost all nations. To such objectors answer should be made that these cadavers, deprived of their guests, feel nothing and are already surrendered to corruption. Let it not be thought that opening the body defiles the honor of burial, since by skilful section not only the members are shown which in good persons were organs of the Holy Spirit, and the mighty works of God are shown respect, but also those fragments of earth, as if they were still intact, are turned over to our common mother.

Moreover for many centuries the bodies of the greatest emperors, kings, princes, and other important personages have been eviscerated and examined with the knife, so as to be rendered more suitable for embalming or aromatic preservation. This custom was widely practiced among the Egyptians, as is witnessed by their mummies, which ha been found in large numbers near Cairo in underground crypts. Co cerning this, in addition to innumerable other writers, remarkable de tails have been presented by the recent Oriental travellers Petrus de Valle Romanus in his Turkish travels, Epistle XI, pages 309 to 323 ... the Venetian edition, and by de Monconnys in his Itinerarium, volume 1, page 185. Similarly for many years it has been customary among the Christians and in many places among those who are in comfortable circumstances. On such grounds praise must be given first of all to the arrangement introduced by Dr. John Joseph Wepfer, the municipal physician of Schaffhausen, who by permission of the magistrates and in association with Drs. Christopher Harder, Frederic Lucius Screta, and Emanuel Hürter has for many years opened the bodies of those who have died of disease and has investigated the true causes of the sicknesses. As a result there was published as a sort of prodrome the tetrad of histories of persons who died of apoplexy, Schaffhausen, 1658, to investigate the site truly affected in apoplexy. It is greatly to be wished that for the general convenience there would be printed the remaining observations which he made through various dissections (and which he mentions in his preface to the reader) in cases of persons who died of lethargy, mania, esophageal ulcer communicating with the trachea, pleurisy, phthisis, cardiac palpitation, hectic fevers, dropsy of the chest, empyema, gastric distention especially with extreme attenuation of the walls, gastric ulcer, dysentery, ileus, intestinal wound, dropsical ascites, ulcer of the kidneys, abscess of the mesentery, vesical calculus, rupture of the bladder, dropsy of the uterus, difficult childbirth, and uterine suffocation, as well as the report of Dr. Hürter who in the district near Schaffhausen dissected a girl who was found to be anencephalic. And in the populous cities of Paris, Amsterdam, Leyden, Padua, Rome, Naples, and others, physicians are rightfully permitted to open the bodies of those who have died of disease and to investigate the causes.

Thomas Bartholinus in his Defensia dubie de Lacteis Thoracicis contra Riolanum, chapter 2, praises highly the diligence of Ballonius in dissecting diseased bodies. Bartholinus himself reported many such histories that are scattered in the six Centuriae of his specially selected medical cases and in medical letters. Dr. Peter Paaw, professor of anatomy at Leyden, likewise published collected cases. Jacob Bontius, physician at Amsterdam, attempted the same at various places in the Bast Indies; he carefully examined the bodies of dead Indians and pubhished in Book III of his Historiae Naturalis et Medicae Indiae Orientalis the noteworthy matters that he had observed. Similar work was done by Johannes Chiffletius, who published his observations at Paris in 1612. In more recent years Johannes Faber of Bamberg, professor at Rome, a man little more than 30 years of age, has dissected a hundred human cadavers of various ages and both sexes. Leo Allatius in Apibus Urbanis, page 157, promises that this rare treasure will be issued for the public benefit. Faber himself makes the same statement in the description of the animals of New Spain by Nardus Antonius Rechius, page 492.

Petrus Castellus, professor at Messina in Sicily, has written a Sepulchretum of anatomical observations which he made in one hundred cadavers dissected while he was professor at Rome, according to the same Leo Allatius, cited above. The same anatomical observations in the dead are mentioned by Castellus himself in the index of his own books attached to the Antidotarium Romanum and in the Optimus Medicus, section 6, page 12, he says that there were 200 cases. The anatomical observations of Marcus Antonius Ulmus in bodies of persons

who died of disease and were dissected by him and by others are cited by him in the list of his own writings which is prefixed to his book on the female uterus.

Thomas Bartholinus in his century 4, epistle 93, page 546 admits that he had long contemplated the preparation of such an anatomy of the dead but he feared he would die with it [uncompleted]. That Harvey had thought of a similar work he testifies in his first exercise addressed to Riolanus but it is to be lamented that nothing of the kind was published. Perhaps this, with other compositions worthy of preservation, was stolen; he complains of the loss of his works in exercise 68 of the De Generatione Animalium, page 442. In the treatise cited above Bartholinus says it is highly desirable that prosectors should devote their energies to this task in the hospitals which have a sufficient supply of cadavers. The praises of such dissection are recited by Deodatus in the Valetudinarium, page 117. Because of the usefulness of the dissection of cadavers, future investigators will be vigorous collectors, and reports of this kind will be inserted in these Ephemerides, if only the indulgence of magistrates and the favor of the most experienced physicians and readiness to communicate our efforts will work together.