

De abditis
morborum causis

DE ABDITIS NONNULLIS
AC MIRANDIS MORBORUM
ET SANATIONUM CAUSIS

By
ANTONIO BENIVIENI
of Florence

Translation by
CHARLES SINGER

With a Biographical Appreciation by
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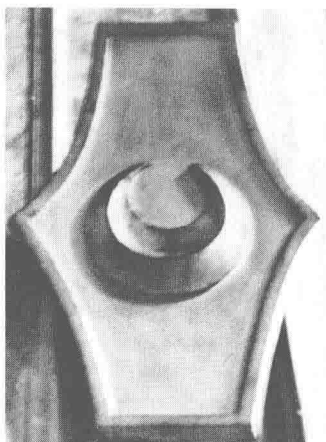
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*DE ABDITIS NONNULLIS
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Antonio Benivieni (1443-1502).

PREFACE ❸

MEDICAL historians have long paid tribute to Antonio Benivieni (1443–1502) of Florence as one of the founders of pathological anatomy. In his 59 years he wrote many works on medicine, philosophy, literature and art. A number of these still survive in his own beautiful handwriting, but his fame rests on one printed publication, his *De abditis nonnullis ac mirandis morborum et sanationum causis*. This is a collection chosen from his case records. It was edited soon after his death by a Florentine physician, Giovanni Rosati, at the request of Antonio's brother, Geronimo. It was first printed in 1507 at Florence, but its text, though widely recognized as influential, is now little known. Copies of the first and later Latin editions are rare. The only previous translation, that of Carlo Burci, is in Italian.

Not a few writers have deplored the general unfamiliarity with this little classic. None has expressed the deficiency more succinctly than the distinguished French historian of surgery, J.-F. Malgaigne (1806–65). He apologized for writing lengthily on the contributions of Antonio Benivieni, in his introduction to the works of Ambroïse Paré (Paris, 1840), confessing that he could not resist furnishing more information on an illustrious pioneer whose place in medicine had not been given the recognition that it merited. Benivieni's book, in

Malgaigne's view, was the only one in its field that could be said to be without a predecessor. In Italy, thanks to the writings of Carlo Burci, Francesco Puccinotti, Bindo de Vecchi, Andrea Corsini and Luigi Belloni, Benivieni's place in medical history is well established.

In English there are a few accounts of Benivieni and several translations of individual chapters of his book. Notably Ralph Major of the University of Kansas contributed a brief biography to the *Annals of Medical History* (1935), and Mrs. Roger D. Shaw translated Burci's Italian translation of the *De abditis morborum causis* in the course of an unpublished study of the Benivieni family presented as a thesis for a Master's degree at the University of Chicago (1937). There are also short references to Benivieni in most of the standard histories of medicine and dictionaries of medical biography.

In presenting this work we would extend our particular thanks to Professor Luigi Belloni of Milan for permission to include the portrait of Benivieni which he had used as the frontispiece to his edition of Benivieni's *De regimine sanitatis ad Laurentium Medicem* (Turin, 1951), to Professor Andrea Corsini of Florence for the illustration of the Benivieni Chapel in the S.S. Annunziata at Florence, to the firm of Alinari in Florence for a number of photographs of monasteries with which Benivieni was associated, and to Professor Henry E. Sigerist of Pura, Ticino, Switzer-

land, for additional assistance with the illustrations. We are much indebted to Miss Virginia Belsito of the Staff of the National Tuberculosis Association for meticulous care with the manuscript. Finally we wish to express deep appreciation to Mr. Charles C Thomas and his associates for their precision and attention to detail in the presswork which has made this volume possible.

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ESMOND R. LONG

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PLATE I. Chiesa della Santissima Annunziata.
(*Photograph by Alinari, Florence.*)



PLATE III. Via Ricasole, formerly Via Cocomero,
where Antonio Benivieni lived. (*Photograph by*
E. R. Long, 1934.)

ANTONIO BENIVIENI AND HIS
CONTRIBUTION TO PATHOLOGICAL
ANATOMY ☞

PATHOLOGICAL anatomy has been a recognized scientific discipline since the publication of Giovanni Battista Morgagni's monumental treatise *De sedibus et causis morborum* in 1761. As a basic science it has grown enormously in the two centuries since that time. But Morgagni's own compilation was not a sudden and unprecedented development of a new field. For more than two centuries prior to its appearance observations in the field of pathological anatomy had accumulated, and indeed it was a particularly large and notable one of the several accumulations of such reports, the *Sepulcretum* of Theophile Bonet, that stimulated Morgagni to his own achievement.

Among the physicians living two centuries before Morgagni who contributed significantly to the development of the science, and whose reports were included in Bonet's compilation, was Antonio Benivieni of Florence, who recorded a series of necropsies by himself and associates in a small book devoted largely to clinical experience, published in 1507.

At that time the science of pathological anatomy was indeed in its infancy. Normal anatomy, in spite of certain noteworthy advances, was still to become an exact science, for this was thirty-six years before the publication of

Vesalius' *De humani corporis fabrica*, and without an exact understanding of normal anatomy pathological anatomy could be but an untrustworthy science. Strangely enough, however, the study of human pathology was apparently in better standing than the study of normal anatomy, for, thus early, there was not infrequent resort to necropsy for medico-legal purposes. In his *Evolution of Anatomy*, Charles Singer¹ has called attention to the fact that permission for post-mortem examination was easier to obtain at that date than permission for actual anatomical dissection. In illustrating the point he referred to the surprise and disappointment of Antonio Benivieni, the subject of this sketch, when he was refused permission to perform a necropsy in a case in which the diagnosis was not clear.

In the pages to follow the inadequate character of the necropsies of the period will be evident. But they must be assessed in the light of the times, and it will be appropriate, in introducing the subject of the pathological anatomy of Benivieni, first to discuss the man himself and his times.

Antonio di Paolo Benivieni was born in Florence on November 3, 1443. He was a member of an ancient and noble Florentine family. His father was Paolo Benivieni, a notary of the city, and his mother, Madonna Nastagia de Bruni. He was the eldest of five sons, two others of whom, Geronimo and Domenico, achieved distinction.

Antonio's education was apparently of the best the times could afford. To appreciate it we must recall something of the period when he was born. His youth coincided with the opening of the Italian Renaissance. The fall of Constantinople, from which the Revival of Learning in the West is commonly dated, occurred when Antonio was ten years old. But the humanistic movement had been under way in Italy long before the dispersion of Greek scholars following the Ottoman capture of the Byzantine capital. Accomplished tutors were plentiful in Italy, and under one of these, Francesco da Castiglioni, Antonio, as a child, studied Greek and Latin and laid the foundations in general literature that made him almost as gifted a man of letters as a physician. When the time for more specialized training came he attended the Universities of Pisa and Siena.

We do not know what events directed him toward the profession of medicine. His interest cannot be traced to medical teachers of surviving reputation in either of these schools. We do know, however, that these universities shared in the great development of medicine under way in north Italy since the thirteenth century. For a better understanding of Antonio's background it might be well to review this development.

In the later Middle Ages some memory of the traditions of Galen and of Hippocrates had been revived through the medium of the Islamic medical literature. The weight of an-

cient authority, however, precluded objective observation of disease, and self-sufficient medieval scholasticism still further restricted the appearance of new ideas. The basic sciences anatomy and physiology were still as taught by Galen. Therapy was prescribed with a hodgepodge of herbal drugs. Eminent physicians mixed their remedies with a liberal allowance of religious superstition. The concoctions of the Arabians were fortified by the mystical action of holy relics. Over all, new astrological concepts had cast an obscuring fog.

But a change was at hand. In north Italy universities had come into existence in the thirteenth century, and the need they filled is attested by their enrollment of thousands of students from all parts of Europe. Organization was at last under way for instruction in philosophy, theology, law and medicine. In the last named discipline a series of teachers arose who paved the way for the great figures of Renaissance medicine. Among these may be mentioned Taddeo degli Alderotti of Bologna, a Florentine by birth, who introduced the "*consilia*," a form of clinical discussion, in medical literature, and, particularly, Mondino dei Luzzi, also of Florentine extraction, who wrote in the opening years of the fourteenth century the first text book of anatomy compiled from dissection of the human body. With new freedom of thought, public as well as official consent to the intimate investigation of

this hitherto inviolable mystery was at last given. Thus, a century and a half before the period when Benivieni was performing necropsies with almost the freedom of modern times, a professional anatomist and forerunner of Vesalius had broken with tradition and opened the way for personal observation on the structure of the human body and the accumulation of data useful in the practice of medicine.

In the years between Mondino's epoch-marking work and Benivieni's university days positive anatomical and physiological knowledge became more widespread. So overshadowed are the crude beginnings in these sciences by the masterly achievements of the anatomists and physiologists of the sixteenth and seventeenth centuries that their very existence is commonly ignored. Yet between Mondino and Vesalius a respectable fund of human anatomical, physiological and pathological knowledge was put on record. Of this period are the French surgeons, Henri de Mondeville and Guy de Chauliac, and the Italian medical men, Bartolomeo da Varignana and Guglielmo da Saliceto. Inevitably the multiplication of surgical operations brought increased knowledge of normal structure and function.

By rare good fortune we have a list of the contents of Benivieni's own library, and so have a picture of the medical literature available to a practitioner of the period. Benivieni's library, naturally, consisted of manuscripts. In

the inventory of 1487 there was one exception, a printed (*stampa*) copy of Virgil. The art of printing was developing in Benivieni's own time. The Gutenberg Bible was published when he was 12 years old, but it was only in his declining years that any appreciable number of printed medical books appeared.

The record of Benivieni's library is found in an autographed manuscript in the Archivio di Stato of Florence, which has been well studied by Professor Bindo de Vecchi² of the University of Florence. This manuscript, attached to the papers of the notary Paolo, Master Antonio's father, contains fragments of Antonio's private records from 1487-89. On page 196, as Professor de Vecchi has described, occurs the "Record and inventory of the books that I own on this 25th day of December, 1487." Benivieni was then 44 years old, and presumably in the prime of his medical practice. There are 169 titles, including works on philosophy, logic, theology and astrology, as well as medicine, and a considerable amount of general literature in Greek, Latin and Italian.

A typical representative of the intellectual class in the golden age of Florence, Benivieni was as much a man of letters as a practitioner of a profession. In his library were the works of Cicero, Virgil, Terence, Juvenal, Seneca and Sallust, the historical works of Josephus, the *De civitate* of Augustine, and, of course, the works of Dante, early founder of the hu-