Proceedings of Online International Conference on Advances in Scientific Research and Developments
Organized by Novateur Publications, Pune, Maharashtra, India
JournalNX- A Multidisciplinary Peer Reviewed Journal
ISSN: 2581-4230, Website: journalnx.com, August 8th, 2020.

THE DEVELOPMENT OF THE SUBJECT ANATOMY

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Abstract:

This article deals with the development of the subject anatomy, the history of the subject, types of the subject. I try to explain my thoughts below.

***Keywords**: anatomy, development, usage, history, types, organ*

Introduction

Anatomy (derived from the Greek word meaning cut, cut, open) is a branch of biology that organises the parts and location of the human body. Anatomy consists of two main sections, General Anatomy and Histology. In general anatomy, the parts that can be viewed by eye are studied, and in histology, the parts that need to be seen with a microscope are studied. General anatomy is divided into several more sections: animal anatomy, plant anatomy and human anatomy. Anatomy is a science that studies the shape and structure of some organs, systems and the whole organism; more part of the phology (see animal morphology, plant morphology). Anatomy it is divided into (zootomy) and anatomy of plants (phytotomy). Animal's person Anatomy (anthropotomy) is allocated. Comparative (comparative) A, which studies the main stages of the evolution of the organism of humans and animals. There are also the term "A" is more man Anatomy is used for expression. If initially each member was studied separately, then later it can be studied taking into account the interaction of members, their laws of unification in a system, organism as a whole, its interrelationship with the external environment, the interrelationship between the form of members and its function. In other sections, human anatomy is the most desired anatomy department. From a medical point of view, human anatomy is a section that studies the shape, location in the body of parts of the body of a healthy person, large-small and associated with other parts. In topographic anatomy, it is thoroughly studied by cutting a number of corpses. From a morphological point of view, human anatomy is the most interesting section. Each part makes the question of why such a form is so positioned. This interest has created additional sections in biology – embryology or developmental biology and histology. The discipline of anatomy is divided into macroscopic and microscopic. Macroscopic anatomy, or gross anatomy, is the examination of an animal's body parts using unaided eyesight. Gross anatomy also includes the branch of superficial anatomy. Microscopic anatomy involves the use of optical instruments in the study of the tissues of various structures, known as histology, and also in the study of cells. The history of anatomy is characterized by a progressive understanding of the functions of the organs and structures of the human body. Methods have also improved

dramatically, advancing from the examination of animals by dissection of carcasses and cadavers (corpses) to 20th century medical imaging techniques including X-ray, ultrasound, and magnetic resonance imaging. Anatomy can be studied using both invasive and non-invasive methods with the goal of obtaining information about the structure and organization of organs and systems. Methods used include dissection, in which a body is opened and its organs studied, and endoscopy, in which a video camera-equipped instrument is inserted through a small incision in the body wall and used to explore the internal organs and other structures. Angiography using X-rays or magnetic resonance angiography are methods to visualize blood vessels. The term "anatomy" is commonly taken to refer to human anatomy. However, substantially the same structures and tissues are found throughout the rest of the animal kingdom and the term also includes the anatomy of other animals. The term *zootomy* is also sometimes used to specifically refer to non-human animals. The structure and tissues of plants are of a dissimilar nature and they are studied in plant anatomy. Humans have the overall body plan of a mammal. Humans have a head, neck, trunk (which includes the thorax and abdomen), two arms and hands, and two legs and feet. Generally, students of certain biological sciences, paramedics, prosthetists and orthotists, physiotherapists, occupational therapists, nurses, podiatrists, and medical students learn gross anatomy and microscopic anatomy from anatomical models, skeletons, textbooks, diagrams, photographs, lectures and tutorials and in addition, medical students generally also learn gross anatomy through practical experience of dissection and inspection of cadavers. The study of microscopic anatomy (or histology) can be aided by practical experience examining histological preparations (or slides) under a microscope.

Human anatomy, physiology and biochemistry are complementary basic medical sciences, which are generally taught to medical students in their first year at medical school. Human anatomy can be taught regionally or systemically; that is, respectively, studying anatomy by bodily regions such as the head and chest, or studying by specific systems, such as the nervous or respiratory systems. The major anatomy textbook, Gray's Anatomy, has been reorganized from a systems format to a regional format, in line with modern teaching methods. A thorough working knowledge of anatomy is required by physicians, especially surgeons and doctors working in some diagnostic specialties, such as histopathology and radiology.

Academic anatomists are usually employed by universities, medical schools or teaching hospitals. They are often involved in teaching anatomy, and research into certain systems, organs, tissues or cells. Invertabrates constitute a vast array of living organisms ranging from the simplest unicellular eukaryotes such as *Paramecium* to such complex multicellular animals as the octopus, lobster and dragonfly. They constitute about 95% of the animal species. By definition, none of these creatures has a backbone. The cells of single-cell protozoans have the same basic structure as those of multicellular animals but some parts are specialized into the equivalent of tissues and organs. Locomotion is often provided by cilia or flagella or may

proceed via the advance of pseudopodia, food may be gathered by phagocytosis, energy needs may be supplied by photosynthesis and the cell may be supported by an endoskeleton or an exoskeleton. Some protozoans can form multicellular colonies. Metazoans are multicellular organism, different groups of cells of which have separate functions. The most basic types of metazoan tissues are epithelium and connective tissue, both of which are present in nearly all invertebrates. The outer surface of the epidermis is normally formed of epithelial cells and secretes an extracellular matrix which provides support to the organism. An endoskeleton derived from the mesoderm is present in echinoderms, sponges and some cephalopods. Exoskeletons are derived from the epidermis and is composed of chitin in arthropods (insects, spiders, ticks, shrimps, crabs, lobsters). Calcium carbonate constitutes the shells of molluscs, brachiopods and some tube-building polychaete worms and silica forms the exoskeleton of the microscopic diatoms and radiolaria. Other invertebrates may have no rigid structures but the epidermis may secrete a variety of surface coatings such as the pinacoderm of sponges, the gelatinous cuticle of cnidarians (polyps, sea anemones, jellyfish) and the collagenous cuticle of annelids. The outer epithelial layer may include cells of several types including sensory cells, gland cells and stinging cells. There may also be protrusions such as microvilli, cilia, bristles, spines and tubercles. Marcello Malpighi, the father of microscopical anatomy, discovered that plants had tubules similar to those he saw in insects like the silk worm. He observed that when a ring-like portion of bark was removed on a trunk a swelling occurred in the tissues above the ring, and he unmistakably interpreted this as growth stimulated by food coming down from the leaves, and being captured above the ring.

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