

No nonsense pathology

Anwar ul Haque

Some people find pathology very boring, dry, and difficult subject. For a person who desires to be a good doctor, it will certainly be very unfortunate to think so, as pathology solves the mysteries behind various diseases and deciphers the secrets behind various signs and symptoms. Pathology answers Why? What? When? Where and How? of symptoms and signs. No passionate doctor will find solving these puzzles boring or dry. In contrast he shall find it very absorbing, challenging, and helpful. Someone had rightly labeled pathologist as "Doctors' Doctor" as he may answer the questions of other doctors due to his sound and deep knowledge of Pathology. A doctor should enjoy such a subject which does all that. It's not only very challenging but also very satisfying and obliging. Perhaps for creating an impression of pathology as difficult and dry subject, there is role of some pathology books that give too much unnecessary details in a very boring style. In too many details one can't find a needle in a haystack. The final Prophet of Allah Muhammad (ﷺ) has sought Allah's protection from useless knowledge. Useless knowledge kills the very creativity. Allah, the Creator is the most Wise and Knowledgeable. He created everything with a purpose and in a superb organized logical manner that can be seen in every creature from tiniest cell to the huge galaxies. As there is an order and reasoning in every creation, a logical dissection of its disorders in our body can be very fruitful. There is no such thing as 'random' or 'idiopathic' in universe. A substantial reason exists behind everything which sometimes require more deep thinking, research, and sincere help from Allah to solve the mystery and intricacies. This was the method adopted by such giants in Medicine and other fields of science as Ibn e Sina (Avicenna) and Al Biruni. If we read their books they begin with Allah's name, His praises and salutation to the Prophet Muhammad (ﷺ). When we study pathology, we must not only remember our Greatest Creator and His immense wisdom, control, care, mercy, and blessings but we must also thank and duly praise Him on every step. We must actively shun godless science, godless medicine, and godless pathology. When we talk about a car etc., we

always mention it's manufacturer, why then we, one of the most sophisticated creatures don't mention Our Greatest Creator, Provider and One Who not only created all material but also laid down the principles (Ayats) governing all things. To compare Allah's knowledge with human beings is like a tiny drop of water to seven oceans. If you bring seven oceans as ink and create pens out of all trees, all this will exhaust but Allah's virtues will not.¹ If something goes wrong in our body i.e., a disease occurs then logical & systemic analysis based on our knowledge of biology, anatomy, physiology, genetics, and microbiology will guide us towards understanding of mechanism (pathogenesis), give us explanation of signs and symptoms, predict complications, and suggest possible outcomes. Everything will then begin making sense and after which treatment of the disease and management of the patient becomes easy and satisfying. A sound understanding of pathology is essential for pathologist but it's also very useful for all other disciplines of medicine. Let's take a few examples to make our point clearer. if we understand edema and congestion then we may easily explain effects of cerebral edema in head trauma including various types of brain herniations.

We may easily explain retinal hemorrhages, nasal polyps, swelling of feet in chronic heart failure, laborious breathing in pulmonary edema, effects of strangulated inguinal hernia, fibrosis in torsion of ovary and testis and expansion of schwannoma at CP angle with serious consequences.² So like Ibn e Sina and other founders of modern Sciences one must not shy of seeking help and praising Allah when we are studying. Ibn e Sina once stuck with a problem, he offered two Rakat nafal prayer and sought Allah's help. Within minutes he heard voice of an old book seller praising a book of Farabi. He bought the book and found the solution to his problem. Who was Ibn-e Sina? The father of modern medicine whose book "al-Qanoon fit Tib" (Principles of Medicine, wrongly translated as Canon of Medicine) remained standard textbook of medicine for seven centuries and who was al Biruni? The one who not only measured the diameter of earth 1000 years back with utmost accuracy in his

laboratory in Pind Dadan near Jehlum, Pakistan under patronage of Mehmud Ghaznawi but also chalked orbits of more than 900 stars and predicted existence of Americas. We must study Pathology with open heart and open mind. There is no problem seeking lessons and wisdom from non-Muslims as wisdom is lost inherited property of a believer (Hadith).

To study Pathology we must have good grip on basic subjects like Anatomy, physiology, and microbiology without going through unnecessary details and half cooked and crooked research. Not everything written in the books is correct or ultimate truth. The writers are not gods. There is no god except The God Whose proper name in Arabic is Allah, the God of Adam, Noah, Abraham, Jacob, Moses, Jesus, and Muhammad (Peace be upon them). These writers and scientists are human beings and just fallible like us. Their knowledge is limited, very deficient and at times very wrong. We must not take our writers as gods, and we must reject anyone who poses to be so. We should study in an active, structured, intelligent, integrated way. First learn the basics like edema & congestion. If you know these for example, you can easily explain brain herniations and their effects in various conditions like severe head trauma, retinal edema. Hemorrhage and retinal detachment, nasal polyps.² The Signs and Symptoms of Pulmonary edema. Renal edema, congestion leading to fibrosis in ovarian and testicular torsion and even uterine leiomyoma, uterine prolapse and menstrual irregularities.³ Standstill heart may lead to severe congestion in liver leading to its momentarily shut down manifested by markedly disarrayed liver enzymes etc.

If we learn hemorrhages and vascular obstruction e.g., in atherosclerosis etc. we can easily solve the riddles of stroke, heart attack and intestinal gangrene. Lack of oxygen from whatever cause may have easily predictable consequences through well-defined pathway.

If we take neoplasia there are many similarities between various benign neoplasia as well as between different malignant tumors not only on gross and micro levels but also in clinical presentations and outcomes. If we learn these similarities, then neoplasia becomes quite easy to understand in all respects.

In genetics, the genetic language in all His creatures is same testifying His Oneness and explaining why

tinest viruses can use human machinery to produce their offspring. Once we grasp the main functions of chromosomes and genes, then genetics become very enjoyable subject. In storage, deficiency diseases, there are many similarities, which can be easily diagnosed on Fine Needle Aspiration Cytology (FNAC).⁴ These may be clearly comprehended for example in amyloidosis, accumulation of amyloid substance in various tissues can easily explain all the sign and symptoms.⁵ This is also true for other storage and deficiency disorders. In Systemic Lupus Erythematosus (SLE) if we understand implications of vascular involvement then we can explain rather easily the chorea, dermal manifestations, pleural effusion, and renal presentations.

The better understanding of pathology will make you a better Pathologist. But sound knowledge of Pathology will also make a better internist, a better surgeon, a better in all most any medical field.

In conclusion, Pathology must be studied with positive logical focused mindset, smart way with common sense as well as inquisitive mind, then most things could be easily and logically understood. This is not surprising as everything is most wisely, purposefully and logically planned and organized by its Caring Creator.

References

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