LET US CLASSIFY ANAESTHESIA

Lt Col Tariq Hayat Khan, MBBS, MCPS, FCPS
Classified Anaesthetist, CMH Hyderabad.

What is the benefit of classifying anything we come across in medical practice? Why we have classifications of almost every symptom, every sign and an array of disease processes? Is it merely a means to create more hurdles in the way of success of undergraduate or postgraduate candidates, by testing the sharpness of their memories and the power of recall? The answer to these questions is not a simple one. But first of all, we should study a few examples of various classification in contemporary medical practice.

Look at the classification of dyspnoea described by the New York Heart Association. [1-2] Grade 1 means no breathlessness, and Grade 4 says that the individual is breathless at rest. So when you have to describe the relative severity of dyspnoea, you simply mention the relevant grade e.g., "He is suffering from dyspnoea grade 4.' It is understood that the individual is suffering from the most sever form of dyspnoea, so much so that he is dyspnoeic even while at rest. On the other hand grade 1 will signify that although the patient may be suffering from other respiratory or cardiac symptoms, he is not breathless.

Now come to grading of angina of effort by Canadian Cardio Vascular Society. [3] Grade I states, 'ordinary physical activity does not cause angina (strenuous physical activity provokes angina). Grade II patients are said to have slight limitations of ordinary physical activity (climbing one flight of stairs or walking uphill provokes angina). You can appreciate that how a single word and a number can conveniently convey what all about is associated about the physical capability of a patient of angina of effort of certain severity.

Similarly classification of various other disease processes have been coined by various authors. Child's classification of cirrhosis of liver, classification of anemia, sideroblastic anemia, various carcimoma's, psychiatric disorders and syndromes are just a few to mention. [4] The subject of pathology is full of all sorts of classifications.

In anaesthesia practice, various scoring / grading system serve the same purpose. Apgar score, TISS, injury scores, APACHE I,II and III are examples of grouping a number of physical inclines under certain brackets. [5-10] ASA patient status from I to V describe the physical ability of a patient about to undergo anaesthesia and surgery, depending upon his involvement in some systemic disease. Thus ASA PS-I is a normal healthy person about to undergo an elective procedure for a disease that has minimum bearing on his general health.

Mallampatti was the first one to classify sighting of pharyngeal structures to predict the difficulty of intubation, and McCormick and Lehane graded the laryngoscopic view of the larynx to correlate with the same.

Now it will be easier for you to understand that classifying something into groups, grades, classes or types is a means to simplify the things, it organizes large amount of much diverse information or data to facilitate its retrieval and reproducibility, and to make it more presentable in a logical fashion.

The practice of anaesthesia has attained multiple dimensions over the last decades. Starting from local infiltration of the wound to regional nerve blocks, from simple plain general anaesthesia to combined spinal epidural (CSE), anesthesiologists have endeavored to conquer the ever-menacing enemy of the mankind – the pain. Almost every combination of these has been tried successfully out of a galaxy of procedures. Look at the general anesthesia itself. You may administer it by a single bolus of thiopentone or propofol, combined with nitrous oxide in oxygen, or you may opt to resort to volatile inhalational agent in nitrous oxide and relaxant with intermittent positive pressure ventilation. It all depends upon the expertise of the anesthesiologist, the condition of the patient, and the nature and the extent of the surgery planned. You may use face mask alone or choose COPA or LMA. You may well be pushed to intubate this patient. It all remains the general anaesthesia. If you want to just point out about the technique chosen by you, you will have to describe it in toto. No short cuts! But why? Here is a simple method to classify anaesthesia. I have deliberately selected two sets of nomenclature. It will remain to be seen in the days to

come, which one gets wider acceptance by the anaesthesia practitioners, or all this effort is offered only a laugh. The history is so much rich with such sort of examples. After all somebody had to do it.

CLASS		ANAESTHETIC TECHNIQUE
System 1	System 2	
A	**LA**	**LOGICAL ANALGESIA**
A-1	LA-1	Local infiltration
A-2	LA-2	Nerve block
		Field Block
A-3	LA-3	Plexus block
B	**GA**	**GENERAL ANAESTHESIA**
B-1	GA-1	GA by inhalation only volatile agent in N_2O and oxygen through face mask / COPA / LMA
B-2	GA-2	IV agent, plus N_2O O_2 Through face mask/COPA / LMA.
B-3	GA-3	IV agent, intubation, volatile agent, Non- Oxygen. On spon taneous respiration.
B-4	GA-4	B-3 + relaxant and IPPV, semi-open circuit.
B-5	GA-5	B-4, but with closed circuit.
C	**SA**	**SPINAL ANAESTHESIA**
D	**EA**	**EPIDURAL ANAESTHESIA**
D-1	EA-1	Epidural sinlge shot.
D-2	EA-2	Epidural continuos infusion or intermittent boluses.
E	**BB**	**INTRAVENOUS REGIONAL ANAESTHESIA (BIER'S BLOCK)**

The use of such a system may include the following.

- To provide guidelines for admissions.
- To assess patient's for day care surgery.
- To allow comparisons between different cohorts of patients.
- To allow comparison between different sets of anesthetic techniques.
- To stratify the methods used during anaesthetic practice to reduce bias in research.
- To differentiate differences in morbidity and mortality according to technique.
- To make outcome predictions that influence clinical decisions.
- To reach a rational decision based on cost-effectiveness.
- To classify various anaesthesia outlets according to the facilities available.
- To compare the expertise of the anaesthesia administrators in a set-up, or between different set-ups.
- To facilitate description of anaesthesia technique.

Further work is required to validate this system. After due validation, it may be implemented internationally.

REFERENCE:

1. Boushy SF, Billing DM, North LB et al:Clinical course related to preoperative pulmonary function in patients with bronchogenic carcinomas. Chest 59: 383, 1971.

2.

3. Roizen MF: Anaesthetic implications of concurrent disease, Table 27-24, Page 947 in Miller RD: Anaesthesia 4th Edition, Churchill Livingstone, New York, 1994.

4. Child III CG, Turcotte Surgery and partial hypertension. In : Child III CG, ed, The liver and portal hypertension, Philadelphia; WB Saunders, 1964: 50.

5. Rown KM, Outcome, comparisons of intensive care units in Great Britain and Ireland using the APACHE.II method. PHD thesis, Univ. of Oxford, 1992.

6. Bion J, Severity scoring: principles, methods and application. I : recent advances in Anaesthesia and Analgesia 17. Edinburg: Churchill Livingstone, 1992: 173-96.

7. Keene A, Culkn D. Therapentic intervention scoring system: update 1983. Critical care medicine 1983: 11: 13.

8. Palazzo M, Patel M. The use and interpretation of scoring systems in the ICU: Part 2. British Journal of Intensive care 1993: 2: 286-9.

9. Le Gall JR, Lameshows, Sauliner F. a new simplified acute physiology score (SAPS II) based on a European-north American Multicentre study. Journal of American Medical Association 1993; 270: 29057-68.

10. Yates DW. Scoring systems for trauma. BMJ 1990: 301: 1090-4.
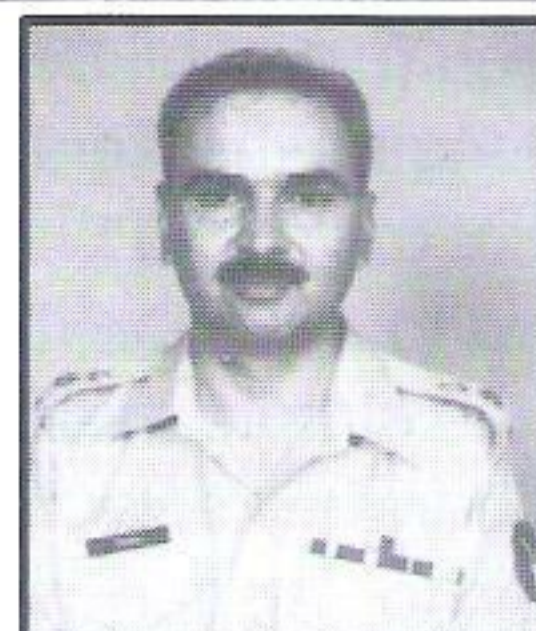
Lt Col Tariq Hayat Khan *passed his FSc examination in 1973 from Govt. Dyal Singh College, Lahore. He graduated from Punjab Medical College, Faisalabad. in 1980. He belongs to the pioneer group of the college. Soon after passing out he joined AMC as GDMO. He did his grading in Anaesthesiology in 1989, and qualified MCPS in 1993. He passed in FCPS-I exam in 1995 and FCPS-II in 1999. He is the author and co-author of a number of papers. He is the founder-editor of "APIC".*