

Current Status of HBP Research Field

Current Status of HBP Research Field: Where to Go in Near Future?

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As a medical doctor, the final goal of any kind of research is focused on better treatment or caring of the patient than the used ever. As a surgeon, the research is more focused on better result in surgical procedure and the immediate to long term outcome. In human being, hepatobiliary tract and pancreas (HBP) play a major role in digestion, body metabolism and endocrine function. These organs are sophisticated in pathology as well as anatomy and physiology. The surgery of the hepatobiliary & pancreatic organ is very difficult. Therefore, hepatobiliary surgeon's endeavor to treat the patients who have hepatobiliary & pancreatic diseases should be scientific and based on evidence in order to get the best result.

The definition of evidence-based medicine implies the need to base clinical decisions on the results of scientific investigations and the judicious use of the best current evidence in making decisions about the care of the individual patients. It is meant to integrate clinical expertise with the best available re-

search evidence and patient values. EBM has been increasingly advocated in all specialties for recent years to evaluate specific therapies and procedures. The goal of research is directed to achieving evidence-based medicine (EBM).¹

Nobel prizes in medicine and physiology have been conferred to the people who had outstanding achievements in those fields of research and contributed to mankind. Of the elite group of individuals who have awarded the Nobel Prize in medicine since 1901, nine were practitioners of the art of surgery or one of its subspecialties (Table 1).²

The important discoveries made by these pioneers were based on a range of ingenious approaches. These include 1) the elegant design of basic laboratory models by Banting, Hess, and Huggins; 2) the meticulous perfection of new surgical techniques by Carrel and Kocher; 3) the unique application of astute clinical observations by Gullstrand, Barany and Murray, and 4) even brazen daring by Forssmann. The vision, courage, and perseverance displayed by these giants em-

Table 1. Surgeon nobel prize winners in medicine and physiology, 1901-2010

Laureate	Year	Nationality	Research	Specialty	Age*
T. Kocher	1909	Switzerland	Thyroid, phys, path, surgery	Surgeon	68(31 [†])
A. Gullstrand	1911	Sweden	Astigmatism	Ophthalmology	49(32 [†])
A. Carrel	1912	French (Lyon)	Suturing vs. transplant	Surgeon	40
R. Barany	1914	Austria (Vienna)	Vestibular function nystagmus	Neurosurgeon	42
F. Banting	1922	Canada (Ont)	Discovery of insulin	Orthopedic surgery	32
W. Hess	1949	Switzerland	Midbrain, diencephalon Autonomic nervous act.	Ophthalmology	44
W. Forssmann	1956	German (Berlin)	Cardiac catheterization	Cardiac surgeon	52
C. Huggins	1966	USA	Hormonal Tx of prostate cancer	Urology	65
J. Murray	1990	USA	Transplantation	Surgeon	71

*The age received Nobel Prize, [†]The age appointed as a full professor.

phasize that success is not an accident but reaffirm the truth of the observations.

Progression and achievement in the field of HBP surgery for recent 20 years are remarkable. In particular, laparoscopic surgery, understanding the internal anatomy and physiology of the liver, hepatic surgery including liver transplantation, surgical oncology of the biliary tract and pancreatic cancer are outstanding. However there was no Nobel Prized surgeon during this period although there were remarkably improved outcomes and the surgeons contributed a lot for mankind to use improved methodology in caring patients.

The mechanism of injury and protection of the liv-

er, healing process of the liver injury and end result of fibrosis, protection against fibrosis, role of genes in carcinogenesis and prevention of cancer progression are remained to be elucidated. Hopefully another Nobel Prize may be conferred in these research fields.

References

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2. Cosimi AB. Surgeons the Nobel Prize. Arch Surg 2006;141:340-348.