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The people who are involved in studying medicine, are required to conduct a continuous study. Recently medicine has been divided into three main research categories. One is Basic Research, second is Clinical Research, last one is Registered Research (Figure 1).

Figure1

Basic Research:

If you are planning to involve a practical element to medicine, you always have to remember to be able to make a clinical application. How much time and effort does it take? Giving an example, for an organ transplant treatment there was a need to develop an immunosuppressive drug. It is said that in Japan, the time and cost to create this medicine and be able to use it on a human being, it takes an average of 11 years and costs \$100M, and the success probability is only one in 200,000. So if the researcher starts basic research that aims for clinical application, it takes more than 10 years.

And in the recent years, scientific research is getting even broader, and deeper. Many doctors will get awarded MD for these efforts. However it just shows the potential to apply it to a clinical research.

Clinical Research:

The first step for a clinical research is a process of clinical trials to check the effectiveness and safety for the patients. In the recent years, the research of the transition process between basic research and clinical research, called the 'translational research', has gained attention for its importance.

In this fields, the results show: what kind of transplantation operation can you perform? How can you administer an immunosuppressive drug? How can you prevent a patient from infectious diseases? etc. These are becoming the guidelines of how you can actually check your patient. It is a kind of policy and rules for a clinician. The Organ Transplantation medicine has started in the late 1960s and there is no need to say that for these 40 years it has sprung from a basic research to a clinical research as a medical revolution.

Registry Research:

Registry Research is the final stage of the research showing in reality how the patient who was checked according to the guidelines (and policies) has reacted (to the clinical research). For this reason there is a need to totalise all the evidences.

"Encouragement of Transplant Library and Future Transplant research"

At the transplant medicine fields, Sir Peter Morris for whom I, Kobayashi MD, has a great respect, has founded and worked on the "Centre for the Evidence in Transplantation" concerning the registry research about transplant medicine since 2005. Also having put together high quality articles (database) concerning organ transplantation registry research, he started providing a service called "Transplant library". I am one of editorial board member of the "Transplant library". From all the information related to organ transplantation in general, you can accurately grasp the actual patients' treatment outcomes (prognosis). This shows clearly the issues with the current organ transplant treatment, and sets out the directions for the next 20-30 years of basic research concerning transplant medicine. Based on the facts concerning transplant medicine, I would like to start a new basic research discipline called "Creating transplantable organs".

Transplantation Library Link
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