

Cancer Patients Have Two Medicines to Swallow

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COLUMN ARTICLE

Combination therapies are developed in the confluence of allopathy drugs from the West and traditional Chinese medicines along with allopathy drugs from the West. These are increasingly utilized during the treatment of difficult to cure diseases. For example, in order to treat B-Cell lymphoma, cancer drugs from the West - SAHA, saberoylAnilideHydroxamic Acid is combined with an extract from the barks of the roots of *Sophora Flavescens* and two other plants. Cancer progression was found to be inhibited and at a higher rate compared with the therapeutic action of either SAHA alone or Chinese extract alone. This combinatorial therapy was patented by Shengzhou Biotechnology in the year 2013. Yet another example of combined action was demonstrated by Zonhon Biopharma Institute for treatment of diabetes. Use of combination of allopathic drugs along with Loofah seeds have found to result in reduction in blood glucose levels. Loofah seeds come from the botanical variety that is used in dish washing and sponge mop purposes. Loofah seeds have also shown to have a preventive effect on patients with genetic predisposition for diabetes.

The number of pharmaceutical patents filed at the State Intellectual Property Office of the PRC, Peoples Republic of China was 16,500 in the year 2014. *Au Contrairie*, 5000 pharma patents were duly signed by the patent examiners at the USPTO, United States Patent Trade Mark Office from this country, United States. Chinese patent applications are

in the areas of formulation and compounding. The China has the world's largest population at 1 billion and 402 million in the year 2015. Indi has the world's second largest population at 1 billion and 284 million in the year 2015. Grannies upbringing of children in both these countries may have lead to interesting medicines. The medicines and methods that have withstood the test of time can be subject of research as how come these are so effective. Indus Valley Civilization and Chinese Civilizations are two of the first four river valley civilizations documented in history of mankind (the other two are Egyptian and Mesopotamian). The Chinese government ensures that more can be done to keep every man, woman and child of China well fed and healthy. Indian government's former Prime Minister, Mrs. Indira Gandhi, under the *haribihato* scheme attempted to eradicate poverty by use of genetically modified crops in the 70s. This region of the world can be tapped into for therapy that is robust. Then again the entire Chinese patenting activity grows at a rate of 25%. Whether barks, starch and plantain leaves can be patented is a subject that can become controversial with sharp attorneys. Curcumin added to hot milk can be used to recover fever in less time. China is the second largest pharmaceutical market per the IMS Institute for Healthcare Informatics.

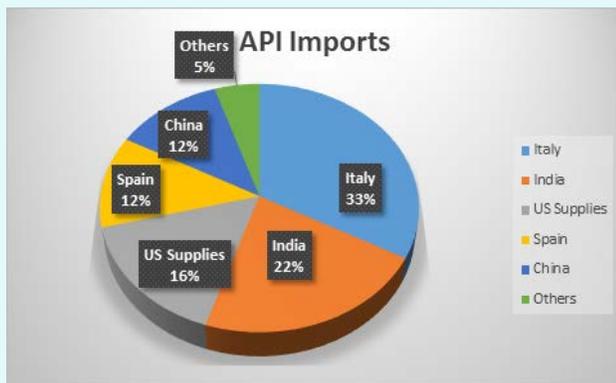


Figure 1: Market Share of API Imports to U.S. in the year 2014.

The U.S. market for generic API, advanced pharmaceutical ingredients was worth ~ 5 billion U.S. dollars in the year 2014. The market share is shown in Figure 1.0 as a pie chart. Italy, India, U.S. supplies, Spain, China and others hold the market share. The Italian contribution has decreased from earlier years. China's foray into Japanese pharma sector is only 2%. Quality and accountability have to improve for further increases in market share of China in Asia. They have a China Food and Drug Administration, CFDA. The Chinese 5 year plan 2011-2015 included the development of five pharma companies with annual sales of ~ 8 billion US dollars and 100 additional companies with sales of about 1.61 billion U.S. dollars. During the 2016-2020 plan period the top Chinese Pharma organization, Shanghai Fosun Pharmaceutical Group Co. is intending to acquire and expand to the tune of 805 million U.S. dollars by developing drugs. They expect a revenue increase by 40%. U.S. FDA, United States Food and Drug Administration has opened up offices in Beijing, Shanghai and Guangzhou. Inspections free of bribes and kickbacks are needed in order to regulate the 4000 Chinese companies. There were 84 inspections by U.S. FDA in the year 2013. These regulatory activities need be integrated with the views of international organizations such as Pharmaceutical Inspection Convention and Pharmaceutical Inspection Co-operation Scheme and European Fine Chemicals Corp.

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