## Platelet-rich plasma therapy in orthopedic clinical practice: "Again I ask the gentleman..."

There has been a rapid increase in popularity of platelet-rich plasma (PRP) in orthopedic clinical practice in the last decade. While there have been a number of publications supporting the use of PRP in clinical use, there are also many publications, which do not support the efficacy of PRP in certain clinical conditions. However, it appears that these days, more and more orthopedic surgeons are taking an interest in meetings dedicated to the use of PRP in clinical practice.

Approximately 10 years ago, PRP used to be one product, a solution that had platelet count almost five times above the baseline, although at the same time many studies questioned the ideal concentration for a specific clinical condition. Over a period, things have changed and some researchers started questioning the contents of an ideal PRP solution for a particular indication. The presence of white blood cells (WBCs) in PRP is still a matter of huge debate. Some studies have shown that the WBCs in PRP can be harmful, particularly when used for intra-articular injections. We, now, have special PRP kits available in the market, which help making "leukocyte-poor PRP." Most recent studies have also highlighted on the harmful effects of some of the other contents of PRP.

Thus, "improving the efficacy of PRP" in clinical practice is the latest buzzword among the researchers. Most recent studies have also indicated that the presence of alpha-2 macroglobulin can improve the efficacy significantly. Efforts are being made to remove "bad" factors from the preparations and keep only "good" factors. The bad factors are identified through special tests such as enzyme-linked immunosorbent assay test. It is believed that the future will see the use of PRP with improved

efficacy. For the moment, the jury is still out and PRP "nonbelievers" continue to question "PRP believers" regarding the use of PRP in clinical use.

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