Dear Editor,

this letter is a response to the article “Classification of platelet concentrates (Platelet-Rich Plasma-PRP, Platelet-Rich Fibrin-PRF) for topical and infiltrative use in orthopedic and sports medicine: current consensus, clinical implications and perspectives” by David M. Dohan Ehrenfest et al. 1, published in a recent issue of Muscles, Ligaments and Tendon Journal. This review article contains several inaccuracies which might lead to draw misleading conclusions.

The article claims to provide a helpful classification of platelet concentrates in the fields of orthopedic and sports medicine, primarily grounded on “a general overview of the literature on the topic”. It must be noted, however, that assembling a taxonomic guide entails the correct use of terminology, clear and accurate definitions, and a literature review of the most relevant original works in the field. The guide on offer here, however, is quite unhelpfully based on only one clinical study in the field of orthopaedics 2 and the remaining works on both fields amount to four reviews by the signatories of the paper themselves. It is obvious that with this approach anyone could always reach a consensus whatever the field on which they are working.

The article makes several unqualified assertions which we feel compelled to address. In reference to one specific method of producing PRP, namely Plasma Rich in Growth Factors (PRGF) 3, the authors argue that “significant issues of the technique are its lack of ergonomics and the need for approximate pipetting steps during the preparation. The literature on this technique remains very difficult to evaluate, as most articles were produced by the company promoting it”. Citacion for this quote, number 21 in their index, is a letter which, on any careful reading, in no way supports this claim 4. In the interest of genuine clarification, we would like to make five points:

a. Our research team has pioneered some relevant studies on the field of Platelet-Rich plasma, contributing considerably to a wider understanding of the biological efficacy and clinical application of these products 5-7. For instance, our group pioneered the application of different formulations of PRGF in orthopedics 8.

b. The term “ergonomics” is defined (Longman Dictionary of Contemporary English, Fifth Edition, 2011) 9 as “the way in which the careful design of equipment helps people to work better and more quickly”. The definition of this term concerns “labour-saving” and not entail anything about scientific accuracy, robustness or standardization.

c. Pipetting is one of the basic technical foundations of experimental procedures in biology. There is no well-trained researcher who would dismiss a rigorous scientific work merely because pipetting is a step applied in the experimental process. Nevertheless, in order to adapt our method to fit the regulatory system, 5 years ago we designed and developed a novel plasma transfer device that avoids the use of conventional pipetting 10.

d. The statistics on PRGF-Endoret published articles (papers indexed in pubmed, not including review articles, updated 19 June 2014) shows that scientists of BTI have published 37.5% of works whereas 62.5% of studies belong to independent groups.

e. Membranes and clots obtained from PRGF are stable at least 7-8 day, as long as the buffy coat has been correctly filtered out. If not, a membrane containing leukocytes and red cells is produced which make the membrane more fragile and contains significant amount of pro-inflammatory cytokines (IL-B) and down-modulating HGF and TIMP-411-13.

The article is scattered with statements insufficiently underpinned by scientific evidence turning them into mere opinions. The following statements exemplify this point: “the PRP solutions have also the advantage to be liquid before activation…” omitting the fact that it is still liquid after activation for 4-5 min; “the PRP fashion being largely abandoned nowadays due to its cost, complexity and lack of real interest, in comparison to the L-PRF technique” a claim with no references supporting it; “In general, many leukocytes – particularly lymphocytes – are playing a key function as regulation turntable of the healing and inflammatory process…” whereas is rather macrophages which play this role 14-16. Such statements make the writing very confusing. It is not scientifically edifying...

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at all to read in a medical publication “The current unpublished consensus on this matter is that leukocytes are probably beneficial, but it depends which leukocytes…” another claim based on no reference. Not only have the authors failed to provide good answers to their initial “3 good questions”, they have rather contributed to the very confusion they purportedly set out to clear up.

Playing scientist is not a game, it is a hard journey where reaching a consensus implies recognition that other too are walking on this bumpy road of research. Respectfully yours

References


