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Commentary to the article by D.R. Wenger et al.: Corrective shoes and inserts as treatment for flexible flatfoot in infants and children

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ABSTRACT

This is a commentary to the article by Wenger D.R., Mauldin D., Speck G., Morgan D., Lieber R.L. Corrective shoes and inserts as treatment for flexible flatfoot in infants and children. *Pediatric Traumatology, Orthopaedics and Reconstructive Surgery.* 2023;11(2):253–264. DOI: 10.17816/PTORS321250.

Keywords: flexible flatfoot; corrective shoes; inserts.

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По поводу публикации статьи D. Wenger и соавт. «Эффективность лечения мобильного плоскостопия у детей с помощью коррекционной обуви и ортопедических стелек»

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АННОТАЦИЯ

Комментарий к статье Wenger D.R., Mauldin D., Speck G., Morgan D., Lieber R.L. Эффективность лечения мобильного плоскостопия у детей с помощью коррекционной обуви и ортопедических стелек // Ортопедия, травматология и восстановительная хирургия детского возраста. 2023. Т. 11. № 2. С. 253–264. DOI: 10.17816/PTORS321250.

Ключевые слова: мобильное плоскостопие; стельки; коррекционная обувь.

Как цитировать

Кенис В.М. По поводу публикации статьи D. Wenger и соавт. «Эффективность лечения мобильного плоскостопия у детей с помощью коррекционной обуви и ортопедических стелек» // Ортопедия, травматология и восстановительная хирургия детского возраста. 2023. Т. 11. № 3. С. 427–429. DOI: https://doi.org/10.17816/PTORS567901

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Many years of tradition have influenced our perception of the specialty. One of the peculiarities of children's orthopedics is the difficulty of organizing high-quality studies that meet a high level of evidence in accordance with the principles of evidence-based medicine [1].

It is difficult to imagine a more discussed topic in children's orthopedics than flatfoot. The majority of discussions do not refer to orthopedic pathology itself, but they clearly derive a whole chain of negative health sequelae from the fact that a child has flatfoot. Flatfoot is assumed to be responsible for the development of secondary disorders of the knee joints, hips, spine, internal organs and central nervous system, up to headaches and difficulties with learning [2].

Doctors of all specialties consider flatfoot to be one of the most "important" problems in children's health, traditionally suggesting that pediatric orthopedic surgeons "join the fight" against this devastating disease. This "broadening of the battle space" places a great responsibility on pediatric orthopedic surgeons to both colleagues and parents. The logical question is – what to do? And the logical answer is to prescribe something from the conventional orthopedic products, for example – orthopedic inserts and shoes. Both of these "holy pillars" of orthopedics have been accepted for decades as synonymous with medical prescription by pediatric orthopedic surgeons. Fighting tradition is difficult and dangerous. There is a great risk of misunderstanding on the part of colleagues and patients. One has only to recall the tragic fate of Dr. Semmelweis, who tried to introduce the rules of aseptics contrary to the noble traditions of Viennese doctors. But common sense sooner or later overcomes tradition. The famous physician and naturalist of the XIX century Louis Agassiz (1807–1873) wrote: "Every great discovery in science passes through three inevitable stages. First, people claim that it contradicts the Bible. Then they claim that it was known long ago. Finally, they say that they never doubted its correctness."

This long préamble allows us to more fully appreciate the essence of the publication that was presented in the previous issue of the journal, namely, the translation of an article by Dennis Wenger et al. published in 1989 [3]. The readers of the journal may wonder: what is the point of translating and publishing an article of such an old age? The fact is that the article presented to the readers is a kind of legend in the history of children's orthopedics, especially in the history regarding the treatment of children with flatfoot.

A critical analysis shows that the absolute majority, and in fact, almost all studies concerning the treatment of flatfoot are extremely limited in terms of evidence. This is mainly due to the difficulty of organizing high-quality prospective studies, and even more so due to the limited possibilities of randomization of pediatric patients, including those with flat foot. In fact, the only study in the history of children's orthopedics, which meets these criteria to the maximum extent possible, is the work conducted by Professor Wenger, the translation of which is presented in our journal.

It should be noted that the results of the paper have generated a lively debate since its publication, and continue to do so to this day. The interested reader can find the publication of this open discussion in one of the issues of the Journal of Pediatric Orthopaedics that followed the original publication [4]. It is enough to say that many opponents even then cited as evidence their "long experience", "centuries of tradition", the desire to "help the patient" and other reasons that one has to hear even now. We cannot but note the elegance of how Dr. Wenger countered the attacks of his critics – facts, as one famous experimenter used to say, are stubborn things.

So, we have before us not only a classic example of a perfectly executed study, but also an important example of a scientific information source that answers a direct practical question – do orthopedic foot inserts help in the "fight" against flatfoot? And the honest answer of this study is 'no, they don't'! But we also are presented with a direct guide to action – patients should not be prescribed "treatment" methods that have no proven efficacy!

In this regard, practitioners may face an equally practical dilemma – should they change their practice (sometimes for many years) when new research data becomes available, or is it better to stick to empirically established traditions, even if they do not agree with the data of rigorous science? In answering this question to the parents of the many patients with flatfoot who have been previously prescribed orthopedic inserts and promised positive results, I usually give examples from the history of mustard plasters and medical cups. Thirty years ago their efficacy in treating respiratory diseases in children was not questioned. And today, such procedures would at least make parents confused. Of course, no one banned the use of medical cups and mustard plasters in children – they simply outlived their usefulness. Probably even now if you want, you can find them on the Internet and in pharmacies. But is it necessary?

"Heroic struggle" against flatfoot with the help of orthopedic inserts and shoes to date has no scientific basis – this is what the results of the study by Dr. Wenger and co-authors, which have become available in Russian thanks to the work of doctors-translators, Denis Viktorovich Derevyanko and Alena Yurievna Dimitrieva, for what we would like to express our special thanks to them. We would also like to thank Prof. Wenger personally, one of the most authoritative pediatric orthopedic surgeons of our time, whose research goes far beyond the problem

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of flatfoot, for his personal approval of the translation of this article, as well as the editor-in-chief of the renowned Journal of Bone and Joint Surgery, Prof. Marc F. Swiontkowski for kindly agreeing to the translation and publication, which is particularly symbolic at this time. I am sure that the readers of the journal will really appreciate this article!

ADDITIONAL INFORMATION

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