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SECTION 14.
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THE WORK-RELATED PAIN IN SONOGRAPHERS OF DIFFERENT COUNTRIES: A REVIEW

Introduction and background.

The work of a sonographer is known to be associated with certain posture and movement particularities. Sonography (USG) is being applied for more than a half of a century, USG technology is being developed in many countries, although the musculoskeletal disorders and diseases, related to the work of the sonographers, are reported to be present [1], [2], [3], being able to affect professional activities [9].

Purpose. The aim of this review is to look through the prevalence of musculoskeletal pain that may affect the sonographers' performance.

Materials and methods. The search strategy included a request "sonographers" AND "work-related" AND "prevalence", sorting "by relevance" was applied, articles dated the year 2019 and later were included. Additional search entries were found by manual search through the references lists from the original researches. As a search engine Google Scholar was used initially.

Results. The open statistical data on work-related musculoskeletal diseases in sonographers were presented to lack, unlike the research articles. The classification of musculoskeletal pain location and the prevalence of the locations appeared to differ not only among the predominant types of examination, performed by the sonographer [4], [5], [1], [6], [7], [3], but also among the researches of different countries [4], [5], [1], [6], [7], [3] and regions [7], [3].

Static and uncomfortable postures and movements resulting from the transducer application and positioning of patients and equipment, persistent and continual pressure while performing the examination, intensive scheduling of the examinations [10], [11] might cause musculoskeletal injuries, especially when combined for a long time [10]. A range of factors of different modifiability degree, such as adjustability of the workplace equipment and environment, the scheduling, that also includes break time duration and type and number of examinations per day and week, [8], [9], [10], [11], the work experience duration and properties, as the mentioned earlier predominant examination types, [19], sonography technique properties, such as type and stiffness of the transducer grip [14], was reported to play an important role in the occurrence and prevalence of work-related musculoskeletal injuries. The pain location classification was not found to differ significantly in the reviewed researches [3], [4], [5].

Conclusion

The musculoskeletal issues, pertaining to the work of a sonographer, were still found to be an important factor to consider, to evaluate and to solve for improving the sonographers' performance in countries of different healthcare system models, sonographers' education systems, population, income and technology levels. The further researches on the work scheduling, special exercises and physical activities are needed to prevent the sonographers from the musculoskeletal pain and disorders, and to provide enhanced accuracy of the examinations for the patients.

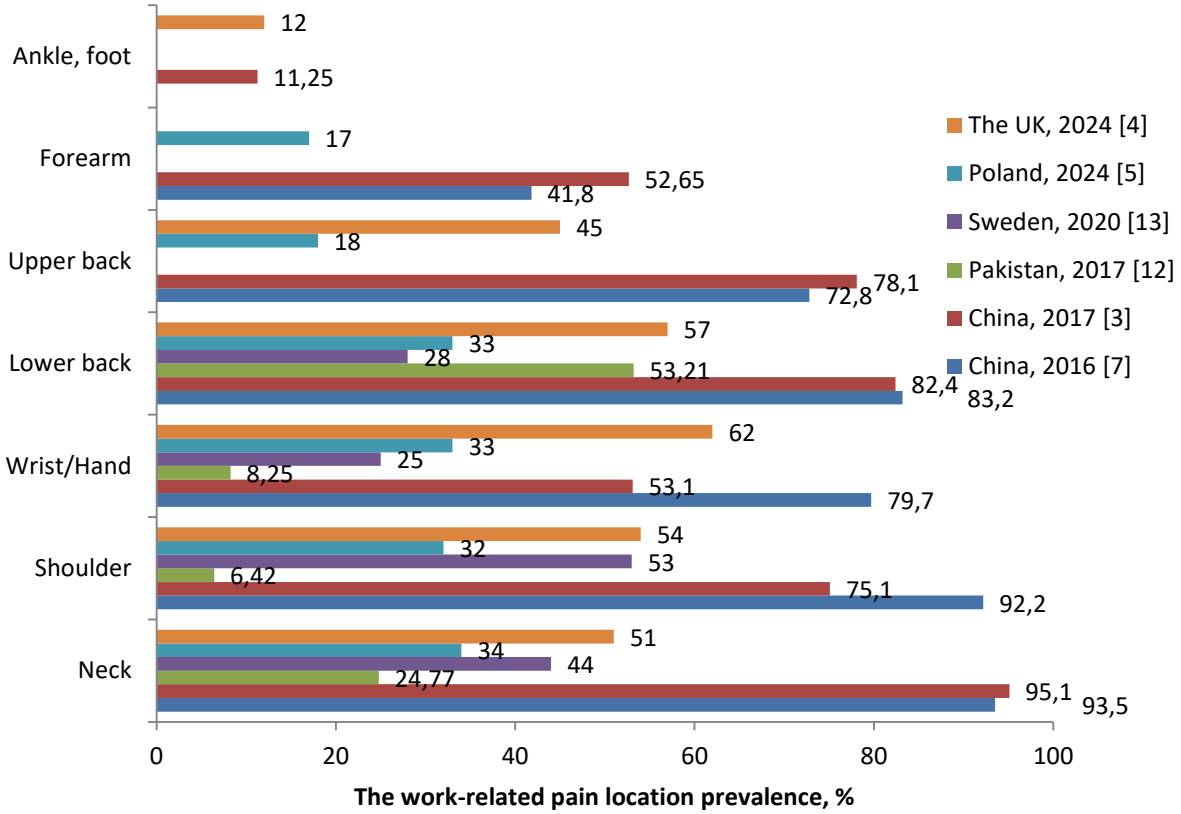

Fig. 1. **Prevalence of work-related pain locations among respondents [3], [4], [5], [7], [12],[13].**

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