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Role of the physiotherapy in prevention and recovery of muscles cramps

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Abstract

Muscle spasms, also known as muscle cramps, are sudden, involuntary contractions of one or more muscles. They can occur in any muscle in the body, but are most experienced in the legs, feet, and back. Muscle spasms can be caused by a variety of factors, including dehydration, electrolyte imbalances, overuse of muscles, and nerve damage.

In this study, we investigated the most common cases of muscle spasm injuries among athletes in the Tobruk Al Squer Club, their causes, the affected areas, and the treatment methods. Data was collected from Tobruk Al Squer Club, and a total of 30 cases of muscle strain injuries among males were recorded during the period from 2022 to 2023.

Physiotherapy plays an important role in recovering patients in a short time and improves their ability to do daily activities. It is important to follow the coach's instructions and advice. Further studies are required to confirm these findings.

Keywords: causes, muscles spasm, physical therapy, Tobruk, Libya.

دور العلاج الطبيعي في الوقاية من تقلصات العضلات والتعافي منها

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الملخص

التشنجات العضلية، والمعروفة أيضًا باسم تقلصات العضلات، هي انقباضات مفاجئة لا إرادية لعضلة واحدة أو أكثر. يمكن أن تحدث في أي عضلة في الجسم، ولكنها أكثر شيوعًا في الساقين والقدمين والظهر. يمكن أن تحدث التشنجات العضلية بسبب مجموعة متنوعة من العوامل، بما في ذلك الجفاف، واختلال توازن الإلكتروليت، والإفراط في استخدام العضلات، وتلف الأعصاب.. في هذه الدراسة، بحثنا في أكثر حالات إصابات الشد العضلي شيوعًا بين الرياضيين في نادي طبرق الرياضي، وأسبابها، والمناطق المصابة، وطرق العلاج. جُمعت البيانات من نادي طبرق الرياضي، وسُجِّل ما مجموعه 30 حالة إصابة بشد عضلي بين الذكور خلال الفترة من عامي 2022 و2023. ولعب العلاج الطبيعي دوراً هاماً في تعافي المرضى خلال فترة قصيرة وتحسين قدرتهم على القيام بالأنشطة اليومية، ومن المهم اتباع تعليمات ونصائح المدرب، وهناك حاجة إلى مزيد من الدراسات لتأكيد هذه النتائج.

الكلمات المفتاحية: الأسباب، تشنج العضلات، العلاج الطبيعي، طبرق، ليبيا.

Introduction

Muscle cramps, also referred to as muscle spasms, occur when your muscles contract involuntarily, forcefully tighten, and are unable to relax. There is no difference between the terms muscle contraction and muscle tension; they both mean the same thing. Muscle spasms can affect any muscle in your body, involving part or all of a muscle or even several muscles in a group. The most common areas for muscle spasms include the thigh common causes of muscle spasm overuse of muscle or being dehydrated while doing physical activity in hot weather, there are some medications or some medical conditions that may lead to muscle tension as well common causes of muscle spasm overuse of muscle or being dehydrated while doing physical activity in hot weather, there are some medications or some medical conditions that may lead to muscle tension as wells, legs, feet, arms, abdomen, and sometimes even the hands[1]..

Common causes of muscle spasm overuse of muscle or being dehydrated while doing physical activity in hot weather, there are some medications or some medical conditions that may lead to muscle tension as well.[2]

Not all muscle spasms are painful, but some can cause pain. It can feel as if the muscles are jumping or moving on their own and this feeling usually lasts only a few seconds. Some people may even be able to see the muscles twitch .[3]

Sometimes, it can feel as if the entire muscle has contracted and you can't move. This effect occurs most commonly in the legs, and can be very painful. You may feel hard to touch the muscles. The cramping sensation tends to fade within minutes, and the muscles may continue to ache for some time afterwards most common symptoms (pain, muscles weakness, numbness, tremor, tingling poor coordination sleep problems [4].

The condition is diagnosed through a complete physical examination and review of patient medical history. Doctors evaluate muscle tenderness and swelling and test their movement to look for abnormalities. Tests and diagnostic studies might be ordered including blood tests for finding electrolytes and hormonal imbalances, X-rays and MRI to determine structural anomalies, and neurophysiological studies (e.g., EMG) to determine nerve function. In certain instances, a muscle biopsy is ordered to determine if a muscle disorder exists. Depending on test results.[5]

Various drugs treat muscle spasms based on their etiology and clinical history: Muscle relaxants (such as cyclobenzaprine, baclofen and tizanidine) relax spas, NSAIDs (such as ibuprofen and naproxen) relieve pain, Reduced by acetaminophen, commonly combined with other medicines., Antidepressants (tricyclics), for instance, can relieve pain and muscle, Anti-anxiety medication (e.g., benzodiazepines) might be helpful if spasm[6]. Souliman et al. Physiotherapy play important role to recovery in short time.[7]

Joeke Hard physical exercise causing cramps is most commonly seen in athletes. muscle relaxation is essential to top-class performance, and cramp, is rare in the well-trained. In the poorly athlete, cramp of muscles- commonly develops[8]. Souliman et al. Physiotherapy played an important role for patients to recover and return to normal life in the least time.[10 '9].

Miller et al The wide range of treatments and prevention strategies for muscle cramps highlights the uncertainty surrounding their underlying causes. Immediate management of acute muscle cramps

should involve gentle static stretching of the affected muscle, followed by a thorough medical history to identify any underlying factors that may have contributed to the episode. Preventive approaches, guided by physical assessment, should incorporate methods to maintain proper hydration and electrolyte levels, as well as neuromuscular training programs.[11].

Jansen et al. Muscle cramps are one of the most frequently occurring neuromuscular features. They occur normally in healthy persons, can be the manifestation of one of several cramp syndromes, but can also be the expression of various underlying neuromuscular disorders.[12]

Material and Method

In this study, we investigated the most common cases of muscle cramps injuries among athletes in the Tobruk Al Squer Club, their causes, the affected areas, and the treatment methods. Data was collected from Tobruk Al Squer Club, and a total of 30 cases of muscle strain injuries among males were recorded during the period from 2022 to 2023, as shown in Table 1.

TABLE 1. The patients had joint replacement Statistical Analysis

The data were analyzed using Microsoft Excel (version 365), which provided a comprehensive suite of statistical and graphical tools suitable for descriptive and preliminary inferential analysis.

6. Treatment	5. Recovery	4. Said of pain	3. Other disease	2. Age	1. Causes
12. Medication (paracetamol, ibuprofen & NSAIDs) 13. Physical therapy: (Rest, Ice, Stretching exercise, Massage, Taking a warm bath & TENS)	11. 5 days	10. Shoulder	9. No	8. 23	7. Weight bearing
	18. 3 days	17. Shoulder	16. No	15. 25	14. Weight bearing
	23. 3 days	22. Arm	21. No	20. 27	19. Excessive stretch
	28. 4 days	27. Foot	26. No	25. 23	24. No warm up
	33. 4 days	32. Foot	31. No	30. 22	29. Dehydration
	38. 3 days	37. knee	36. No	35. 18	34. No warm up
	43. 3 days	42. Thigh	41. No	40. 20	39. Overuse
	48. 2 days	47. Thigh	46. BP,D.M	45. 18	44. No warm up
	53. 3 days	52. Thigh	51. No	50. 22	49. Overuse
	58. 3 days	57. Foot	56. No	55. 19	54. Incorrect posture
	63. 2 days	62. Knee	61. No	60. 19	59. Dehydration
	68. 3 days	67. knee	66. No	65. 18	64. Without stretch
	73. 2 days	72. Thigh	71. No	70. 20	69. Weight bearing
	78. 3 days	77. Thigh	76. D.M	75. 22	74. Overuse
	83. 1 week	82. Shoulder	81. No	80. 20	79. Weight bearing
	88. 3 days	87. Thigh	86. No	85. 19	84. Without stretch
	93. 2 days	92. Leg	91. No	90. 20	89. Dehydration
	98. 2 days	97. Leg	96. No	95. 17	94. Dehydration
	103. 3 days	102. Foot	101. No	100. 19	99. Dehydration
	108. 4 days	107. Foot	106. No	105. 18	104. Without stretch
	113. 3 days	112. Thigh	111. No	110. 22	109. Overuse
	118. 3 days	117. Thigh	116. No	115. 18	114. Without stretch
	123. 2days	122. foot	121. No	120. 21	119. Uncomfortable shoes
	128. 2 days	127. Thigh	126. No	125. 18	124. Without stretch
	133. 2 days	132. Thigh	131. No	130. 23	129. Overuse
	138. 3 days	137. Foot	136. No	135. 22	134. No warm up
	143. 3 days	142. Thigh	141. No	140. 19	139. No warm up
	148. 3 days	147. Thigh	146. No	145. 17	144. No warm up
	153. 3 days	152. Thigh	151. No	150. 17	149. No warm up
	158. 3 days	157. Thigh	156. No	155. 17	154. No warm up

Treatment: Paracetamol, ibuprofen & NSAIDs

Physiotherapy: Rest, Ice, Stretching exercise, Massage, Taking a warm bath & TENS

Results And Discussion

In this study, we investigated the most common cases of muscle spasm injuries among athletes in the Tobruk Al Squer Club, their causes, the affected areas, and the treatment methods. Data was collected from Tobruk Al squer Club, and a total of 30 cases of muscle strain injuries among males were recorded during the period from 2022 to 2023, Whereas was The most common injuries were in the thigh area, as shown in Figure 1.

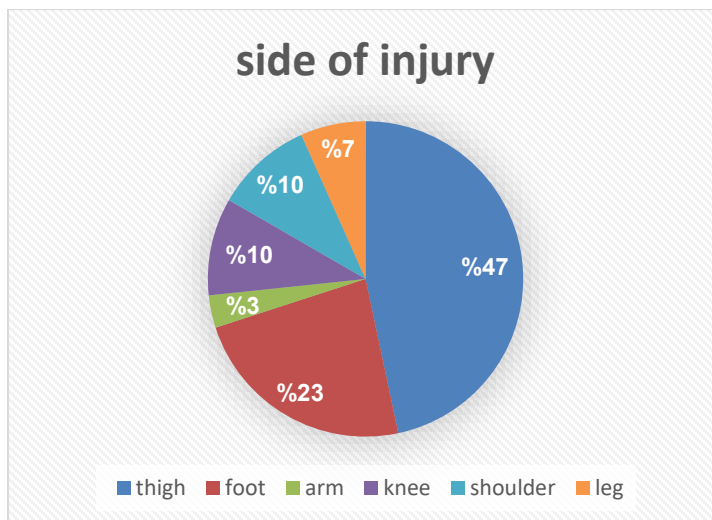


Figure 1. Side of injury.

As in figure, “The injury was most prevalent in the thigh area with a percentage of 47%, while the least common injury was in the arm about 3%”.

Most common causes of muscles spasm was dehydration as shown in figure 2.

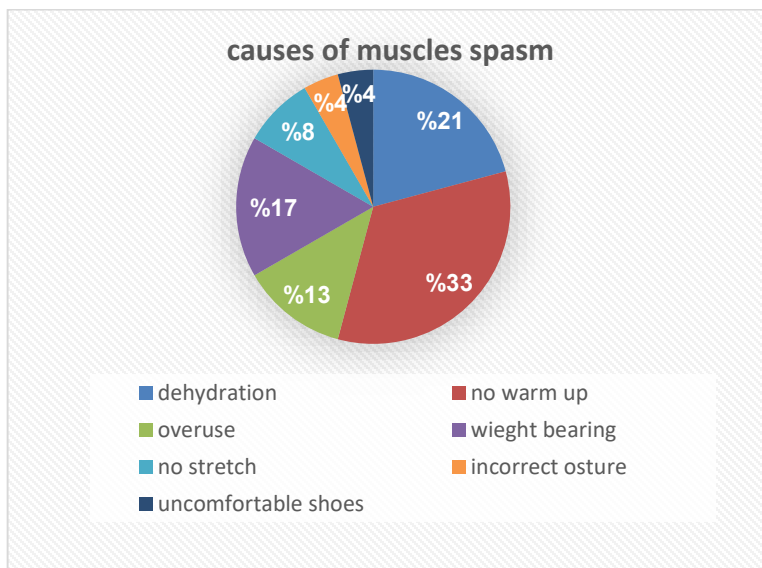


Figure 2. causes of muscles spasm.

"no doing the warm up before playing or exercising was the leading cause of muscle cramps, accounting for a percentage of 33% and least cause was incorrect posture & uncomfortable shoes "

According to this study, the most affected age group by muscle cramps was 20 years old or younger. As shown in figure 3

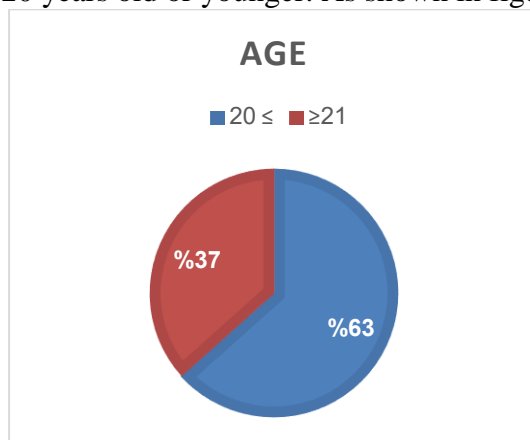


Figure 3. The average age of the injured.

Physiotherapy is very important in early where the cases that had physiotherapy in first 24 hours that give good result. The physical therapy play important role to recover or enhance of ability the patients in daily activity. The player should immediately stop playing when feeling pain because continuing to play may increase the severity of the injury. Physiotherapy at Tobruk played an important role for patients to recover and return to normal life in the least time, physiotherapists followed patients until full recovery by providing them with advice and following up on the rehabilitation program . If the patient stops physical therapy before improvement all function of muscles and joint that lead to go back in health and return to first point. The player should warm up and stretch before starting any physical activity.

Mitsumoto conducted Muscle spasm can affect any of your muscles, it can include part or all of the muscles, or several muscles in a group, and the most common places for muscle spasms are the thighs, legs, feet, worms, arms [1]. Agreed with this study where physical therapy is very important.

Souliman *et al.* Physiotherapy play important role to recovery in short time [7]. This agree with our study.

Joeke (1982) Hard physical exercise causing cramps is most commonly seen in athelts .muscle relaxation is essential to top-class performance, and cramp, is rare in the well-trained. In the poorly

athlete, cramp of muscles- commonly develops[8]. Agreement with this study.

Souliman *et al.* (2022) Physiotherapy played an important role for patients to recover and return to normal life in the least time.[10; 9].

Conclusion

We conclude from our study on muscles tension at Tobruk where it was noted that most causes is no warm up before playing and dehydration. Through this study, we recommend the player should warm up and stretch before starting any physical activity and should immediately stop playing when feeling pain because continuing to play may increase the severity of the injury. These health checks should also include a full musculoskeletal physiotherapy assessment.

Physiotherapy played an important role in recovering patients in a short time and improve ability to do daily activities. It is important to follow the coach's instructions and advice. Further studies are required to confirm these findings.

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