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ORIGINAL ARTICLE

PREVALENCE OF MALE JOINT DAMAGE IN ROWING NATIONAL TEAM OF IRAN

Mehran Beigi Mohammadi[1] , Yahya Sokhangoie[2] , Bijan Godarzi[3] and Vahid Valipor Dehno[4]

[1]Master of Correction Exercises,Khoramabad, Iran
[2]Ph. D,l Department of Physiotherapy,
University of Social W elfare and Rehabilitation Sciences, Tehran, Iran .
[3]Ph. D, Department of physical education and sports sciences ,
Islamic Azad University, Boroujerd branch, Boroujerd, Iran
[4]Ph. D, Department of physiology, lorestan university, Khoramabad, Iran

Abstract:

Objective: The researchers sought to examine the incidence of joint injuries among national Rowing team in Iran.
Methodology: This study is a causal after the event and its information to the field questionnaires were collected. Statistical samples in this study were 40 national Rowing male athletes.
Results: The incidence of joint damage in the samples indicate that joint with 20.11% of the total damages to account. The frequency of the incidence of injury in different organs of the national team athletes Rowing show that head and face with 81.7% lower and upper limb 68.60% more damage to devote the trunk and spine with 68 . 10% and lower limb 83.20 percent had injuries. The results of this study showed that 100% of the national team athletes Rowing at least 5 years long history of participation in training and competition at last have For once injured they have been injured in a way that it refers to the nature of the sport.

KEY WORDS:

Rowing, sports injuries, joint.

INTRODUCTION

Sailing is one of the Olympic sports including kayaking courses, Kano, Turing, slalom, Rowing, Kano polo. All of this attractive activity have a great variety of field as most participants and medals in several tournaments, including national championships, Asian, World and Olympic (Shmami, 1387).

Unlike many other aerobic exercise, rowing involved almost all the major muscles. to reach high levels of rowing athletic success requires constant practice long term And they take a long time and posture of the particular situation prevailing in the field of training activities. (Gherat, 1386) . At the same time one of the oldest sports in the world is rowing , dating back thousands of years. From ancient times rowing boats in the war and were used to transport goods and passengers ran the boat, sometimes up to 170 men were employed in the same boat. Rowing tournament as one of the most traditional and oldest sports in the world is held in Egypt and ancient Rome. Health and physical health are important factors in the success of sports and athletes .The frequency of injuries in sports has a major role in the failure to reach a championship level of Athletes . understanding the relationship between health and safety and reduce sports injuries can contribute to the proper functioning and successful athletes in the sport of life. (Sohrabian, 1382).

Due to athletes health level reasons achieve success is so important. Incidence of injuries could

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also be a goal of preventive and destructive (Abdoli, 1385) .Understanding the reasons of common Rowing injuries can help to developing and improving the sport and suggested better strategies.

RESEARCH LITERATURE

Shephard (1987) in his research showed having strong muscles caused the prevention of sports . Pelham et al (1995) and Taylor et al (1996) this is because it contradicts Taylor and colleagues have environmental causes injury. According to the results of the investigation, Pelham and colleagues (1995) , most sports injuries occur in the upper extremities and around soft tissues, Fever (2001) and Krupnite and colleagues (1998) reported the highest injury during training . According to the results of Whisman et al (1999) The most serious Injuries contains wounds and lacerations, sprains and fractures in multiply injured, bruising and crushing and dislocation . Shephard Research (1987), Schoen and colleagues (2000), all these studies showed different techniques that causes damage in rowing .

MATERIALS AND METHODS

The population

The research population included all male athletes Rowing team . samples with minimum of 5 years experience in rowing and continuing membership in the national team has been selected .Due to the low population of National Athlete team, all of the 40 athletics in the study were selected.

Data collection

With letters of University researcher get permission to start research from Rowing Committee . After a full explanation and guidance on a questionnaire survey among athletes with help of the national team coach , and supervising the completion of questionnaires in 3 days collected.

Statistical methods

Considering the fact that the study is descriptive therefore data analysis as mean, standard deviation and relative frequency .

RESALTS

Table 1-Average number of statistical indicators, age and sport experience

Average sport experience	Average Age	Total sample
6	5.22	40

Table 2 - The distribution of the national team athletes injured areas of the body in terms of frequency and percentage

Total of percentage	percentage	limb	Place of injury
81.7	61.0	mouth, and teeth	Head and Face
	48.1	Head and forehead	
	17.2	Noise	
	43.0	Eyes and ears	
	34.2	Face	
	78.0	Lip and chin	
68.10	65.1	Neck muscles	Trunk and spine neck
	87.0	Chest	
	25.4	Back	
	13.1	The Abdominal Muscle	
	60.2	Cervical dislocation	
	09.0	Sacrum and coccyx	
	09.0	Lumber	
68.60	56.3	Shoulder	Upper Limbs
	65.3	arm	
	85.8	Elbow and forearm	
	65.3	Wrist	
	49.18	Hand	
	65.3	Behind the hand	
	49.14	Fingers	
	34.4	Girdle	
83.20	61.0	Pelvis	Lower Limbs
	41.12	Hip and knee	
	99.3	Leg and ankle	
	66.2	Soles and toes	
	39.1	foot	
	17.0	hair in the pelvic area	

Data in Table 2 presented injury in different organs of the national rowing athletes team. So information showed in head and face injuries less than other areas of the body. Most of the injured area of ? ? the body occurred in spine, upper limb and lower limb and also highest knee injury most happened.

Table 3- Distribution of four types of injuries on the body of the national rowing athletes team

Percentage of injuries	types of injury
92.20	Connection tissue
49.66	Skin
20.11	Joint
39.1	Bons

Table 4 - Frequency and percentage terms of joint damage in various organs of the body, athletes team Rowing

Percentage	frequency	Damage index	Percentage	Location index	Percentage	Main Damage index
0	0	0	0	0	0	Craniofacial
55.1	2	joint wear	55.1	cervical	43.5	Trunk and spine
55.1	2	dislocation	55.1	Dorsal spines		
78.0	1	joint wear	55.1	Lumbar		
78.0	1	Rupture Disk				
78.0	1	dislocation	78.0	Sacrum and coccyx		
32.2	3	dislocation	52.8	Girdle	7.52	Upper Limbs
20.6	8	joint wear				
78.0	1	dislocation	15.20	Elbow		
37.19	25	joint wear				
65.4	6	dislocation	57.22	Wrists		
82.17	23	joint wear				
78.0	1	dislocation	56.1	Palms and fingertips		
78.0	1	joint wear				
0	0	joint wear	0	Thigh	87.41	Lower Limbs
7.3	5	dislocation	33.33	Knee and patella		
46.29	38	joint wear				
10.3	4	dislocation	97.6	Ankle joints		
87.3	5	Joints wear				
78.0	1	dislocation	56.1	Soles and toes		
78.0	1	Joints wear				

According to the data obtained in Table 4, the percentage of joint damage in various organs in rowing athletes shows that the highest damage to the head and face were not observed any harm, trunk and cervical spine with a 1.55%, the thoracic and lumbar spine with 3.10% and the sacral and coccyx with .78% of the damage has been observed.

In the upper limb, scapula 8.52 percent, elbow 20.15 percent, wrists 22.57 and Palms and fingertips 1.56 percent of the most vulnerable have been affected.

In the lower limb, knee and patella 33.33% and ankle injury 6.97 percent, joint foot 1.56 percent have suffered.

DISCUSSION AND CONCLUSION

The results of this study indicate that the most common injuries caused in the course of the upper extremity . The results of the Pelham and colleagues (1995), Schoen and colleagues (2006) and Sohrabian (1382) is in agreement with our results. While research of Whisman et al (1999) is somewhat inconsistent because it is contrary to the raging waters. The reason for this difference can be attributed to the type of activity and by population.

The results also showed the upper extremity shoulder injury state in the third level of damage . The study of Whisman et al (1999) and Sohrabian are quite similar. While not same with result of Schoen et al. The study of Schoen reported highest rate of injuries in the shoulder .

The results of the trunk and spine injuries showed that This area is the most vulnerable . These results same with Caldwell and colleagues (2003), Vaknharv Lybav (1974), Endler et al (1980) and Jvnganz (1990) that have reported the low back pain, and deformity of scoliosis and Scheuermann kyphosis inconsistent and also the results of Whisman et al (1999) and Sohrabian (1382) has been inconsistent.

The results of this study indicate that 20.83% of injuries occurred in the lower extremities. While the investigation Pelham and colleagues (1995), Schoen and colleagues (2000) are quite inconsistent. The reason for this difference is that in no lower extremity injuries has not been reported in the research.

The results show that the least amount of damage to the scalp and face 7.81% of which with the results of Sohrabian (1382) is consistent and with results of Whisman et al (1999) are inconsistent because most damage has been reported in areas of the face and head.

Results and evaluation of the Iran national rowing team from different vulnerable parts of the body in this study indicate that 60.68% of injuries in the upper extremities, 7.81% in the head and face, 10.68 in the trunk and spine and 20.83% have occurred in the lower extremities. The results of this study same with Endler et al (1980) and Sohrabian (1382) .Research findings show that hand and knee are the most vulnerable parts of the body.

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