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THE EFFECT OF LOCAL ANESTHESIA IN SPORTS MEDICINE.

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Abstract:

Thirty injured football players were collected from different Hospitals in Iraq. Governorate and the injured players were subjected to local anesthesia.
Where the study aimed to know the effect of local anesthesia on football players for a long time, and the questionnaire distributed to the players was relied on to know the future effects in addition to the level of complete satisfaction with local anesthesia in addition to the level of general satisfaction
We find that the evaluation contained a high satisfaction by the athletes on the local anesthesia, and the satisfaction rate reached 60%, and 22% was acceptable, and only one player voted not to repeat this again.

Keywords: Medicine sport (MS), LA, satisfaction, questionnaire.

INTRODUCTION

local anesthesia is one of the used and effective methods in sports medicine, especially football players. Through published studies, it was found that the injections used local anesthesia contribute significantly to masking the pain of the injury; in addition to that, it contributes to the continuity of play[1,2,3,4].
And the negatives that were found that the injection of local anesthesia has posed some risk and may be long-term damage factors [5,6,7,8].
The safest options for the player are to refrain from playing until the pain subsides, but this decision is considered a complex solution and depends on many factors [9,10,11].
This review sought to present the results of studies investigating the effect of anesthesia on physical performance and adaptation to sport-related training. Evidence is emerging that it can significantly improve important parameters of endurance as well as aspects of neuromuscular performance, possibly by increasing pain tolerance [12,13,14].
Both NSAIDs have been shown to inhibit cyclooxygenase activity, which may explain the reduced anabolic response to intense exercise. NSAIDs consistently influence muscle hypertrophy and strength gains in response to chronic resistance training in young adults. While it remains to be determined whether any of these observations also lead to poor athletic performance or decreased adaptive training in elite athletes, the widespread use of these drugs certainly raises important practical, ethical, and safety issues that must be addressed[15,16].
Given the documented widespread use of injectable anesthetics and the importance of demonstrating the safety of the practice of injecting injuries with local anesthetics, a systematic review of this topic is required. As of the inception of this review, we are not aware of any previous publications on this topic other than primary articles or narrative reviews. The primary objective of this study was to provide a systematic review of the available literature on the practice and follow-up of local anesthetic injections in elite athletes to facilitate pain-free competition [17,18].

Mechanism work

By acting on the endings of sensory nerves and nerve fibers, local anesthetics block sodium channels, preventing their activation and the entry of sodium into the cell during membrane depolarization. As a result, the action potential does not propagate down the axon because the threshold level cannot be reached.

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. It is also suggested that the decrease in the ionic permeability of the axon membrane may be associated with an increase in the surface tension of the phospholipids that make up the membranes with anesthetics. This, in turn, causes the ion channels to close. There is evidence that anesthetics compete with calcium ions involved in the regulation of nerve fiber membrane permeability to sodium ions. In addition to the local anesthetic effect, when absorbed and directly injected into the bloodstream, has a general effect on the body: it reduces the formation of acetylcholine and lowers the excitability of peripheral cholinergic systems, has a blocking effect on the autonomic ganglia, reduces spasm of smooth muscles, reduces muscle excitability heart and motor areas of the cerebral cortex.

MATERIAL AND METHOD

Patient sample

Thirty patients were collected from different Hospitals in Iraq. The study was concerned only with football players and their injuries and aimed to know the effect of local anesthetic injections on football players.

Study design

A cross-sectional study was conducted targeting the effect of local anesthesia on football players.
The research was conducted on sports injuries, which are treated through surgical treatment in order to facilitate the return to the stadiums.
The average age of the injured players ranged from 20 to 27 years. Information and demographic data for the players were collected. It consisted of the date of injury, age, and type of injury.
The statistical analysis program SPSS SOFT 22 was used for the purpose of analyzing samples and conducting a meta-research, in addition to knowing the type of relationship arising between anesthesia and its effect on players

Study period

This cross-sectional study was conducted from 24-6-2019 to 1-7-2020

Aim of study

This study aims to know the relationship between local anaesthesia with sports medicine.

RESULTS

Table 1- frequency of patients

age					
		Frequency	%	VP	CP
Valid	20.00	4	13.3	13.3	13.3
	21.00	1	3.3	3.3	16.7
	22.00	6	20.0	20.0	36.7
	23.00	2	6.7	6.7	43.3
	24.00	5	16.7	16.7	60.0
	25.00	9	30.0	30.0	90.0
	26.00	1	3.3	3.3	93.3
	27.00	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

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Table 2- Severity pain of local anaesthesia on long term

Severity pain					
		Frequency	%	VP	CP
Valid	MISSING VALUE	1	3.2	3.2	3.2
	no pain	18	58.1	58.1	61.3
	Pain is very influential in all aspects of life	1	3.2	3.2	64.5
	severe pain	4	12.9	12.9	77.4
	simple pain	7	22.6	22.6	100.0
	Total	31	100.0	100.0	

Table 3- Accusations between Injury Type with severity pain (assessment FROM 10 SCORE)

Injury Type * severity pain Crosstabulation							
Count							
		Severity pain					Total
			no pain	Pain is very influential in all aspects of life	severe pain	simple pain	
VAR00002		1	0	0	0	0	1
	AC joint injuries	0	4	0	0	3	7
	All other specified injuries	0	4	1	4	1	10
	Ankle injuries	0	5	0	0	1	6
	bone fractures	0	2	0	0	0	2
	hip pointer	0	3	0	0	0	3
	Wrist injuries	0	0	0	0	2	2
Total		1	18	1	4	7	31

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Table 4- Statistics results of patients

Statistics				
		age	impact intensity	NO of Injections
N	Valid	30	30	30
	Missing	1	1	1
Mean		23.4667	1.8067	1.7000
Median		24.0000	.2000	2.0000
Mode		25.00	.00	2.00
Std. Deviation		2.04658	2.79666	.65126
Minimum		20.00	.00	1.00
Maximum		27.00	9.00	3.00
Percentiles	25	22.0000	.0000	1.0000
	50	24.0000	.2000	2.0000
	75	25.0000	2.1250	2.0000

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Figure 1- frequency Satisfaction rate of soccer players with local anaesthesia

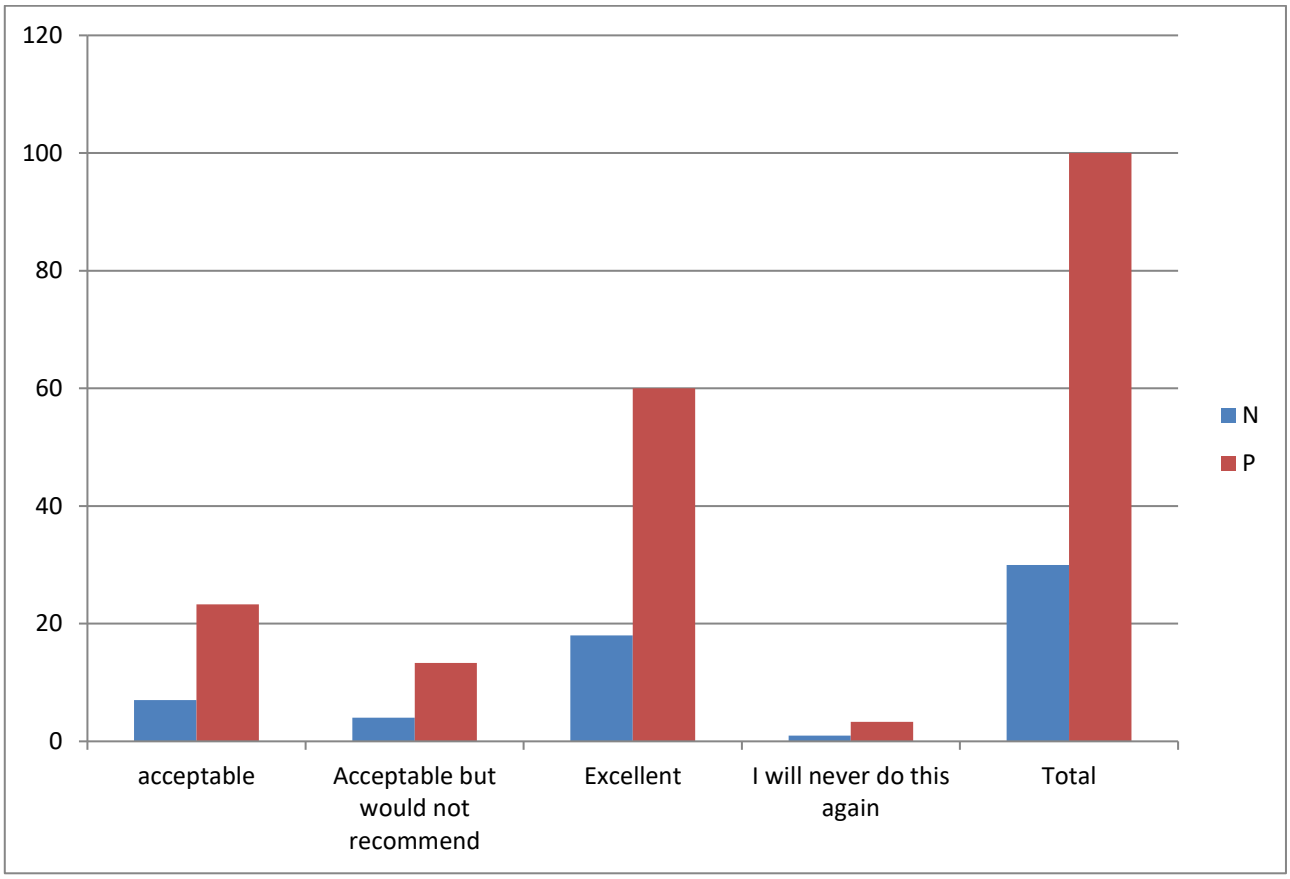

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Table 5- relationship between Satisfaction with Type of injures Cross tabulation

Satisfaction * Type of injures Crosstabulation								
Count								
		Type of injures						Total
		AC joint injuries	All other specified injuries	Ankle injuries	bone fractures	hip pointer	Wrist injuries	
Satisfaction	acceptable	3	1	1	0	0	2	7
	Acceptable but would not recommend	0	4	0	0	0	0	4
	Excellent	4	4	5	2	3	0	18
	I will never do this again	0	1	0	0	0	0	1
Total		7	10	6	2	3	2	30

Table 6- correlation between Local anaesthesia with impact intensity

Correlations				
			Local anesthesia	impact intensity
Spearman's rho	Local anaesthesia	Correlation Coefficient	1.000	0.145
		Sig. (2-tailed)	.	.444
		N	30	30
	impact intensity	Correlation Coefficient	0.145	1.000
		Sig. (2-tailed)	.444	.
		N	30	30

DISCUSSION

Thirty patients were collected from different Hospitals in Iraq. A questionnaire was distributed to football players who underwent local anesthesia, where the answers were divided into four types, and it was found that there was no pain in the long-term for 18 athletes from 30 athletes collected in the study. Finding severe pain for four football players, and in the last place it was for one athlete

As for Table 3, which shows Accusations between Injury Type with incision pain (assessment FROM 10 SCORE) And five players were found to feel the

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presence of a simple pain, and it was ankle injury, and four players with AC joint injuries in addition to 3 players with hip pointer As for the severe pain, it was distributed among all.

And in Figure 1, which shows the frequency Satisfaction rate of soccer players with local anaesthesia, We find that the evaluation contained a high satisfaction by the athletes on the local anesthesia, and the satisfaction rate reached 60%, and 22% was acceptable, and only one player voted not to repeat this again.

This article represents a consolidated attempt to systematically review the evidence regarding the use of injection local anesthetics to treat players in base football. A technical limitation of this study is that there is crossover between the authors involved in this review and the authors of some previous studies. This is a slight limitation in that the follow-up classification was evident with minimal subjectivity, so independent authors are unlikely to come to a different conclusion.

CONCLUSION

We conclude from this study on the possibility of using local anesthesia for injuries of football players, as a high percentage of satisfaction was obtained by football players, reaching 60%, and the safety of its use in injuries to players, and previous studies on or related to this topic were few. If it is difficult to ascertain the safety of anesthesia and the absence of future effects

RECOMMENDATION

Some basic precautions must be taken into account before local anesthesia, such as:

1. Avoid drinking alcohol for at least 24 hours before the anesthesia.
2. Fasting from food and drink for a certain period before the procedure

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