LEFT VENTRICLE COMPETENCE BETWEEN FOOT BALL PLAYERS AND HANDBALL PLAYERS IN JORDAN.

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ABSTARCT,

"Left ventricle competence between foot ball players and Handball Players in Jordan."

The research aimed to identify the circular system competence among athletes and who played Football, from the other hand who played hand ball in Jordan. Thus, the researcher put his question: is there any statistical significant differences in the competence of Circular System between a group of left ventricle foot ball and hand ball players.

Researcher implemented the research on a sample composed of 31 players from them 16 players played foot ball game and 15 players who play hand ball game. Researcher used descriptive approach to adequate this study and the tests happened in the period 21/2 – 10/3/2011 in the physical education Jim in Yarmouk University to use Carlson test to estimate the fitness of the breathing and circular system so the researcher used Sphygmomanometer to measure blood pressure beside Bruce test to limit the malfunction ratio in the left ventricle and the ratio for the malfunction for the left side ventricle = the expected double results – the measured doubled results. the expected double results= 338-(1.85* age in years).

Researcher used stop watches beside medical weight machine and meter to measure the tallness of the players so the researcher received to compare the competence to the breathing system and circular system among football players and handball players, thus they pointed to the superiority of football players 50-65

, 6.5 for the competence the circular system on the handball player. So the researcher concluded from this study that the continuity of playing football and handball when the age advance and do not interrupt their activities will help them in save the competence of left ventricle top to push blood for all the organs of the body to result in high competence in cardiac job and cardiac safety beside increasing the strength of the lungs to save competence of circular system to make the searcher recommended the athletes have the necessity of playing football game and handball game to keep their breathing system and circular system safe to keep them away from the diseases of these two systems.[1]

Study of Left ventricle competence among Football Players and Handball Players in Jordan to keep continuity.

1/1 introduction and the importance of the research:

The suitable sports is considered basic and important factor in physical health in general, and the heart and circular system specially, thus movement will increase the activity of the circular system and will increase also in the cardiac health, at the same time will decrease from accumulated fats in the body to get rid of high risk from the heart.

Football game is considered from the first popular games all over the world, so and because of its importance the football play must increase his level to appear in the suitable fitness among the team and audience who wait from him more and more from painstaking to receive his team to the top. As handball game from the sports which declare the efforts of the player directly in the face of his opponents and among his audience to make it the resource for the players income to live, so, football players and handball players must interest in improve cardiac competence and circular system competence as the physiology variables specially cardiac competence which has great importance in increasing his level, while cardiac competence increase the football player and handball players, own the ability to continue in implement, perform his skills and the demanded techniques which need high efforts, depend always on the contraction of the habit on high level training and continuous frequencies, sometimes trainers called them circular toleration, so all of these depend highly on cardiac adaptation which grew among football players and handball players through continuity and planning for training in physiological ways to make theses adaptations true.

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Some researcher negotiated that age is from effected factors on the average of heart impulse relatively they affected on the strength of the left ventricle in blood circulation to other parts of the body to include in limiting from rest and limiting also from growth and advance in age (10:57-61)

Magal & Fulkner, Cutingham and Eynan assured on that, the advance in sports playing are physiological variables happened in the inside organs of the player body according to this biological changes physically will increase in the occupational abilities inside the body of the athletes . so occupational activity will increase for organs and interior parts specially circular system and breathing system beside improvement on metabolism to result in high increase on the competence of interior occupational organs in the trainee players and organize his physiological occupations (15:35).

2/1 importance of the research:

Age and heritage were considered two factors we cannot control them so cardiac diseases has wide role in thrombus, thickness and coronary occlusion beside other malfunctions like diabetes, high percent of the cholesterol, triglyceride, and the high percentage of homeosestin in the blood: these diseases and cardiac problems resulted from the disability to perform and continuity by football game players and handball players for their activities, beside less physical movement to make researchers pointed that football players and handball player must increase their importance in cardiac safety when age advance.

Cardiac function is pumping blood to all organs of the body, so, we will find that the cardiac push * number of pulses at rest time = 5 liter blood / minute in the normal mature person and this ratio may doubled during performing physical training to receive among some athletes 30 liter blood / minute and during maximum physical efforts it may receive (3:104-105) so physical activity in high drag among football players and hand ball players will increase heart beats so (Ahmad Khader & Ali Bey) pointed that abnormal relative slowness for heart beats average among players refer to cardiac malfunction resulted from the physical adaptation for training effects so they pointed also to that heart impulse for trainee normal person slower than untrained persons approximately 10-30 pulse for minute.

(Al-Welay from Mahmud Hasan) pointed that maximum amount of impulse among normal persons may received 22 liter blood/ minute so athletes impulse will decrease from the maximum value to receive (12)

Impulse may be considered from the important pointers in limiting the severe of the training operation so major of workers in sports training physiological field so to develop and improve the competence of circular breathing assumption impulse

average must not decrease 135 impulse per minute (16),(12) where we can consider some factors: sex, age, disburse, physical case, smoking, nutrition and physical temperature important and effected factors on the impulse (4:32)

Football game and handball game depending in training in periodic high drag so handball player always performed movement skills distinguished in high drag beside using some kinds of fixed and moved muscles contraction in different degrees by the muscles.

Morehouse approved (1963) that gained of toleration phenomena in training in fatigue conditions accompanied by self organize for circular systems which in their role raise the mechanical performing for these systems and demand resistance. (Charles Butcher, 1964) mentioned that that is reality when the area of the body increase the interior organs area will increase to effect on toleration of circular breathing element.

Because, of less number of studies which may focus on general physiological variables, biological area, pressure and impulse specially in football game beside the difficulty to depend on foreign studies in constructing training programs in football game because it differ from Jordanian training programs in the training case for the players, training method, training toleration, drag of the training and the volume of training to draw studied and scientific training programs for football game, from hear the problem of the research appeared in the trail exploring the effects suggested training programs to advance in the level of some variable physiological characteristics for the research and enlightenment in these results to perform more studies may lead to the same purposes.

Researcher saw upon that, the importance of this study to reflexes the importance of the differences in left cardiac ventricle competence for the training program on some physiological variables: maximum inhalation, maximum exhalation, maximum impulse after direct efforts and impulse after a rest for 5 minutes. Contracted pressure, spreading pressure and the maximum amount of Oxygen among football game players and handball game players.

1/3 aims of the research:

Research aimed to identify:

1/3/1 circular system competence (Cardiac Vascular System) among football game players.

1/3/2 circular system competence (Cardiac Vascular System) among handball game players

1/4 Hypothesis of the research:

Questions of the research:

1/4/1 are there significant statistical differences in the competence of the circular system (vascular system) among the group of football game players and hand ball players.

1/4/2 are there significant statistical differences in the competence of left ventricle among the group of football game players and hand ball players.

2/0 Previous Literature:

2/0/1 (Ewes Ali Al Jibali, 1985) study : its subject: effect of physical carrying on the dynamic of pulse average during remedy period for racing players, the study aimed to identifying three different training cases on impulse change during remedy period and compared them with impulse during training course, so the researcher used fixed wheel and the sample bicycles racing players and their number 27 as the researcher measured impulse before training and after training for five minute after performing to measure impulse every minute as the researcher concluded that five minutes is not enough to make impulse change to its normal case and increasing in impulse will connect with increase in training drag.

2/0/2 (Qasem Hasan Husny study, 1985) aimed to identify effects of training program for 8 weeks by using training by encothentic on the physical level ability, and the researcher used 8 male and 8 females from persons who are not athletes from Dailay governorate their ages among 23-53 years, as the study concluded increase in impulse frequency for every type of the cases and increasing in lactate in the blood to improve the level of strength for back muscles and other physical muscles.

0/2/3 (Ibrahim Adel study, 1985): the study explored the importance of physical fitness and individual characteristics during age advanced, the researcher compared between persons who performed training and do not perform these training programs as researcher composed a set of tests to estimate the fitness of circular system and the program of circular system toleration to conclude that individual vital and cardiac competence start in slowness for persons who are not acting training programs specially in the second decade from the age and had continuity on slowness when age advance, beside that heavy training increased cardiac competence to inhibit physical consumption, even partially after gain physical profits as a result of performing training to improve their fitness in general.

2/0/4 (Ekhlass Abed Al Daher study, 1985): this study aimed to explore effects of suggested program for invented dancing on some physiological changes, the sample composed of 100 students from physical education college in Al Jazerah divided into

two groups: experimental and controlled groups, the researcher implement impulse test – physical competence and physical tests connected with invented dancing-racing rebound beside elasticity so the researcher to conclude that there is improvement in the experimental impulse results from control group in all variables, in decreasing in impulse And increasing in the average of Oxygen consumption and improve in vertical jumping and rebound racing.

3/0 Research Procedures:

3/1 Sample:

Sample was chosen in vertical way for football game players and handball players in Al *R*amtha, Al Arabi and AL Hussien Sports clubs, their number are 31 as follow:
3/1/1 15 handball players from Al Arabi and AL Hussien Sports clubs
3/1/2 16 football players from Al *R*amtha club.
Followed table will illustrate the characteristics of the sample

Table (1)

Means and SD for age, length, weight and number of performed years

	Football players n=16		Handball players n= 15		t	Significant level
Variable	mean	Age	mean	age		
Age	42.53	6.35	40.64	2.36	1.04	0.306
Length	173.0	3.88	172.43	5.02	0.39	0.70
Weight	89.26	7.23	95.65	8.23	0.22	0.82
Performed years	13.73	0.88	12.06	1.38	3.96	0.00

As illustrated in table 1 that there are no significant statistical differences between football player and handball players in length, age, performed years and job working year.

3/2 research approach:

The researcher used survey descriptive approach because it is adequate for the purposes of the research.

3/3 place and write down of measurements:

Measures written down in 21/2-20/3/2011 in Yarmouk University Physical Education Jim.

3/3/1 measurements and equations when collecting data:
3/3/2 measurements and the used equations:
3/3/3 Carlson Test: to assess circular system and respiratory system fitness, appendix (1).
3/3/4 Sphygmomanometer.
3/3/5 Bruce equation (8:757) to restrict the percentage for malfunction in the left ventricle.
3/3/5/1 percentage for malfunction in the left ventricle= expected doubled result – measured doubled result.
3/3/5/2 expected doubled results:
expected doubled results = 338 (1.85 * age in years)

3/4 tools:

3/4/1 Stop watches.
3/4/2 weight measurement tool to measure weight.
3/4/3 meter to measure the length.
3/4/4 stethoscope.

4/0 discussing results:

4/1 results explaining:

Circular system fitness is resemble general health for the person and it is the mutual factor in movement fitness, movement ability and physical performance to a degree it was considered the main component for physical fitness and a pointer for the safety of circular system and vascular system for the heart.

Table (2)

Means, SD and t value for both two groups in the research for the competence of the circular system

	Football players n=16		Handball players n= 15		t value	Significant level
Competence of circular system	mean	age	mean	age		
	50.65	4.1	45.65	11.6	1.58	0.125

Table (2) illustrated honor differences between the two groups (A,B) and significant on the level 0.1 for the benefit of football players.

4/2 Discussing Results

As a result of positive effects for the continuity in performing physical training the trainee will gain growth in the circular system which was considered by Mathews 1978 (15:6) reflex strong heart and good vascular thus Boyer 1975 (7:599) assured that physical activity will improve cardiac muscle working when the relation to the cardiac function developed as developing cardiac competence in using Oxygen.

As Mathews 1978(5:91) said that many studies in the last years approved that organized performing for physical training is considered important factor in prevent cardiac diseases.

Table (3)

Means, SD and t value for both two groups in the research for the competence of the left ventricle.

	Football players n=16		Handball players n= 15		t value	Significant level
Competence of left ventricle	mean	Age	mean	age		
	22.113	2.992	19.142	1.901	1.971	-----

Table (3) illustrated differences between the two groups: football player and handball player, it is clear from the table a ratio of malfunction in the left ventricle among the group of football players to point to for damaging in the cardiac competence thus the ratio of malfunction in the left ventricle for any person according to his age equal to the person according to previous Bruce equation. The researcher aid, because of the availability football game playground and easiness in performing it and less availability in handball playgrounds to reverse to increase in relations among football players to make them in their free time play football game.

Previous table illustrated positive improvement and increase in left ventricle competence among football players equal nearly 23% from zero point which resemble balance point for the competence of cardiac muscle according to transitory age for the person, so we can get some lose resulted from stop training by sum the malfunction in the left ventricle to the football players added to the ratio of the left ventricle competence among handball players.

From the other hand, cardiac muscle competence collapse with continuous stop from performing physical activity in all its types, or resemble the three factors: less movement, fat accumulation and high body weight, from the Caruaru risk factors to suffer from arteries sclerosis as illustrated by (Shaefer Le Blohmeke) here the researcher refer the competence of left ventricle among football player which I continue among football players: the nature of performing in football game field

need from performers many movements during training operation which demand from the performer in high degree from physical competence to discharge some skills and physical abilities inside the play ground wither he is football player or hand ball player and because visiting play ground that it perceive five players easy beside using them in handball game.

Maystekov (5:29) mentioned that in spite of positive effects for muscle working but they exposed to malfunction in their nervous system and metabolism to appraise trainees from sports and work in full time in other jobs without any sport activity will lead to cardiac enlargement.

5/0 Recommendations and Conclusions:

5/1 Conclusions:

5/1/1 continuity in playing football game and handball by continuous sharing and performing activities will make the trainer keep in cardiac competence and circular system.

5/1/2 stop training and playing football and handball will be resulted in malfunction in the competence of circular system.

5/1/3 stop training and playing football and handball after advancing in age will be resulted in malfunction in the competence of left ventricle.

5/2 Recommendations:

Referring what is mentioned previously from this study, recommendations will be:

5/2/1 researchers must abduct more studies and compare between athletes who perform different sport activities in different age periods to identify the most effective sport activity on the circular system.

5/2/2 necessity to council and direct players to negative results resulted from stop physical activities for football game or handball game.

5/2/3 some medical test recommended in periodical and organize time on athletes who stop physical activities.

5/2/4 persons who suffered from cardiac diseases must be far away heavy duty and dangerous sports.

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Appendixes (1)

Carlson Fatigue Test :

1/0 Aims of the Test: Measuring the Fitness of Circular Breathing System.
2/0 Used Tools: Stop Watch and Recording Card.
3/0 Aim of the Study: limiting the competence of individual level upon the fitness of Circular Breathing System (fatigue speed).
4/0 Test Steps:
4/1 Speed Running in the place.
4/2 Impulse rate measuring in rest time.
4/3 the individual will run in maximum speed in the place for 10 seconds.
4/4 the person will stop for 10 second as rest after performing the first test.
4/5 Perform the test again- running in the place in the highest speed for 10 seconds after rest for 10 minutes then repeat ten times.
4/6 Account the number of right foot touch for the floor during the test every time.

4/7 Measuring Impulse rate after finish the training during 10 seconds then after two minutes then after four minutes then after ix minutes.

5/0 Accounting the result:
5/1 it must be account the times of touch the right foot for the ground during the test as whole (10 times) and the result will be illustrated in table (a) then we will get production degree.
5/2 five special impulse rates for the test calculated and the end number will be explores in table(B) thus we will get the special degree for the impulse.
5/3 degree in production summed + special degrees in impulse to calculate a degree explored in table (C) and the result is the ratio for circular respiratory system case for the subject in the laboratory.
5/4 These results registered and studied in the period 1/3/2011 to 15/3/2011