Serological Evaluation Of The Presence Of Anti-Spermatozoa Antibody In Infertile Males In Thi-Qar Governorate

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Abstract
A case control study was conducted in Thi-Qar governorate, south of Iraq, included a total 154 individuals 104 of whom were infertile patients while the other 50 males were fertile healthy control males, who attended the infertility center in Al-Hussein Teaching hospital, from 20/10/ 2016 to 16/1/ 2018. aged between (18-51) years with mean of age was (29.95±0.68) and (50) healthy controls males aged between (23-37) years with mean age was (27.58±0.51). All patient submitted full reports about their medical status history, in addition to their infertility type (primary or secondary). Seminal fluid samples were collected by masturbation after three days of sexual avoidance. All patients and healthy control males were tested for presence of anti-spermatozoa antibodies in their seminal fluid. seminal fluid analysis in this study showed there were significant differences (p < 0.05) between fertile control group and infertile males (patients) in (The seminal fluid viscosity, Liquefaction time, Semen volume, Sperm motility and total sperm account) while the results revealed there were no significant differences in the seminal fluid parameters between infertile patients and fertile control group in semen color, pH and sperm morphology. The overall prevalence of ASA in seminal plasma among studied population was 16.23% (25/154).
Among healthy control group anti-sperm antibody in seminal plasma were positive in 6% (3/50) and negative in 94% (47/50) with mean concentration of anti-sperm antibody was 24.97±3.7 U/ml (normal range 0 – 60 U/ml). Among infertile patients anti-sperm antibody was positive in 21.15% (22/104) whereas negative in 78.84% (82/104). The mean concentration of anti-sperm antibody was 40.71±2.32 U/ml. The statistical analysis revealed highly significant differences (P <0.05) in presence of ASA in seminal plasma of infertile patients compared to normal fertile males, also concentrations of ASA in seminal plasma was significantly higher in patients compared to healthy control males. In conclusion ASA was proportionally high among patient with infertility compared to healthy fertile control group.

**Introduction**

It is estimated that more than 48.5 million couples that have unprotected intercourse suffer from infertility worldwide (Ombelet et al., 2008). With prevalence between 5.0% and 25.7% (Fertility, 2013). The percentage of infertile males varied from 2.5-12% globally, largest percentage of male infertility occurred in Central and Eastern Europe (8% to 12%) and Australia (8% to 9%). North America reveals rates of male infertility 4.5-6% (Ombelet et al., 2008). According the result of meta-analysis, at least 30 million men worldwide are infertile with the highest rates in Africa and Eastern Europe (Mascarenhas et al., 2012). over-all, 50% of sterility cases are due to a woman factor, pure man factor reported as 20-30% of the problem, and the rest 20-30% is caused by a combining of both female and male factors (Sharlip et al., 2002). Data from a WHO study conducted from 1994-2000 revealed that, North and West Africa had the high rates of infertility, which ranged from 4.24%-6.35%. Central and East Asia had the lowest rates of infertility, with 2.05%-3.07% of infertility cases due to male factor alone (Mascarenhas et al., 2012). A reduction in the ability of male fertility may be caused by congenital or acquired factors such as urogenital abnormalities, varicocele, infections of the genital tract, genetic abnormalities, hormonal abnormalities, testicular failure, immunologic problems, cancer, systemic diseases, altered lifestyle, and exposure to gonadotoxic factors (Dohle et al., 2005), (Jungwirth et al., 2012). The cause of fertility disability cannot be determined in many cases, in spite of the advances in diagnostic tests. Infertility of unknown cause, it is a situation in which fertility defect occurs spontaneously or caused by an obscure or unknown cause. Infertility
of unknown cause accounts about 37–58% (Moghissi & Wallach, 1983), (Jungwirth et al., 2012), (Rowe, Comhaire, Hargreave, Mellows, & Organization, 1993). The category ‘unexplained male infertility’ (UMI) is reserved for infertile men with infertility of unknown origin with normal semen parameters and have normal findings on clinical examination and hormonal laboratory testing and in which female infertility factors have been ruled out (Jungwirth et al., 2012).

The initial assessment of sub-fertile men includes medical history, physical examination, and at least two semen analyses after 12 months of unprotected intercourse (Pacey & Eiser, 2011). In approximately half of the patients, the initial assessment will identify the cause of infertility, whereas many other patients will need to go through several complementary tests to find its cause (Wiser, Sandlow, & Köhler, 2012).

Immunologic factors are regarded as significant cause for infertility (Bohring, Krause, Habermann, & Krause, 2001). The first immunological correlation with male infertility was reported in 1954 by Wilson and Rumke with the identification of anti-sperm antibodies (Zhao, Zhao, Zhang, & Zhang, 2015), (Vazquez-Levin, et al. 2014). The prevalence of anti-sperm antibodies in infertile men varies from 9%-36% (Jiang et al., 2016) The main cause being the loss of the blood-testicular barrier and the association with chronic inflammation (Garcia, Rubio, & Pereira, 2007). Immune infertility has been shown to be found in 15% of patients with varicocele (Rossato, Galeazzi, Ferigo, & Foresta, 2004). Anti-sperm antibodies are found in cervical mucus, seminal fluid of men, Presence of anti-sperm antibodies in seminal fluid considered risk factor for infertility (Bohring et al., 2001). Despite the fact that millions of sperm cells are present within seminal fluid, only hundreds to tens found at any one within the fallopian tube (Esteves, Schneider, & Verza Jr, 2007). Immune response to sperm able to induce male infertility; antibodies that formed against spermatozoa did not necessarily impair male fertility unless the circulating antibodies are also found within the reproductive tract and on the living spermatozoa surface. Anti-sperm antibodies are produced in autoimmune infertility. Germ cells are normally sequestered from the immune system by the blood–testis barrier formed by Sertoli cells (Hjort, 1999). situations that cause damage of this barrier, like trauma, testicular surgery, varicocele, infection and inflammation as orchitis, may cause exposure of the germ cells to the immune system and production of anti-spermatozoa antibodies (Esteves et al., 2007), (Francavilla, Santucci, Barbonetti, & Francavilla, 2007), (Francavilla et al., 2007). The body treat the spermatozoa as foreign body. To clarify this, three hypothesizes of explanation. The first claim that spermatozoa are not display at the time
of embryological development during which the immune system establishes tolerance to self-antigens (Francavilla et al., 2007). The second explanation that spermatozoa are haploid and have not the same chromosomal make-up from the somatic cells (Francavilla et al., 2007). The third hypothesis, named ‘immunosuppression theory’, suggests that T-suppressor lymphocytes, which suppress immune response, are activated by small amounts of spermatozoal antigens continuously leaked from the genital tract (Francavilla et al., 2007). Immediately when sperms formed during puberty, the immune system consider them as foreign cells, so they should be completely isolated from the immune system (Kayama, 2005). This isolation occurs within the testis, one of the immunologically privileged sites, by the blood–testis barrier. In other regions of the male genital tract, the epithelial lining, probably supplemented by a local immunosuppressive barrier, is responsible for this isolation (Kayama, 2005). In spite of its immuneprivileged condition, the testis is clearly able of mounting inflammatory responses, as proved by its effective cellular and humoral defense against infections (Kipersztok et al., 2003), (DIEKMAN et al., 2000). It is well documented that the presence of anti-sperm antibodies can interfere with fertilization related to harmful effects on embryonic development and implantation.6,7(Verón et al., 2016), (Cui et al., 2015) . It has also been Together cellular and humoral immunity have been involved in the cause of immune infertility disease (Ombelet et al., 2003). Anti-spermatozoa antibodies could be defined as immunoglobulins of the IgG, IgA or IgM isotype that are formed against various parts of the sperm (head, tail, mid-piece or all of them) (Yeh, Acosta, Seltman, & Doncel, 1995). Immunoglobulin subclasses IgA and IgG can be found in the ejaculates of males with anti-sperm autoimmunity. However, IgM looks to have no clinical effect, it is rarely detected alone or combined with IgA or IgG (Ombelet et al., 2003),(Yeh et al., 1995).

**Aim of the study:**

- To identify the relation between presence of anti-sperm antibodies and male fertility alteration in Thi-Qar governorate.
- To estimate the prevalence of the presence of anti-sperm antibody in Thi-Qar governorate.
- To evaluate the association between presence of ASA in idiopathic infertile male

**Material and methods:** The study was conducted in Thi-Qar governorate, south of Iraq. A total 154 specimens of seminal fluid were collected for study. A case-control study involve fifty (50) healthy fertile males as control group and one hundred four (104) males with fertility disorders who attending infertility center / Al- Hussein Teaching hospital, from 20/10/ 2016 to 16/1/ 2018. aged between (18-51) years
with mean of age was (29.95±0.68) and (50) healthy controls males aged between (23-37) years with mean age was (27.58±0.51). All patient submitted full reports about their medical status history, in addition to their infertility type (primary or secondary). Seminal fluid samples were collected by masturbation after three days of sexual avoidance. All patients and healthy control males were tested for presence of anti-spermatozoa antibodies in their seminal fluid.

Ethical and Official Approval: The procedure of this research were approved and granted from the ethical research approval committee of college of medicine / university of basrah. All participants were given verbal approvals to involvement in this study.

Seminal fluid samples were collected in a private room adjacent the laboratory, in order to limit the exposure of semen to fluctuations in temperature and to control the time between collection and analysis. The samples were collected after a minimum of two days and a maximum of seven days of sexual avoidance according to WHO 2010 criteria. The man informed by clear spoken instructions about the collection of seminal fluid sample to ensure that seminal fluid sample be complete and not loss of any fraction of the sample. The following information was recorded on the report form the man’s name, age and personal code number, the period of abstinence, the date and time of collection, the completeness of the sample, any difficulties in producing the sample, and the interval between collection and the start of the semen analysis (WHO standards 2010) . Anti-Spermatozoa Antibody ELISA test used for the determination antibodies directed against human spermatozoa. This test is designed for the use with seminal plasma.

**Results**

1. Sorting of age in this study

In the current study the total number of males included in this study was (n=154), 104 of them were infertile patients while the other 50 males were fertile healthy control group. with mean age (29.95±0.68) and (27.58±0.51) years respectively, also the age distributed in to three age groups and the age intervals as shown in (table 1). In the infertile patients, the highest percentage of studied patients was with in age interval 26-35 was 56 patients (53.84%). followed by age interval 15-25 was 27 patients
(25.96%) and then the age interval 36-51 was 21 patients (20.19%) which represents the lowest percentage. In the fertile control group, the highest percentage within age interval 26-35 was 76% (38 patients). Followed by age interval 15-25 was 18% (9 patients) and the age group 36-51 which showed the lowest percentage 6% (3 patients) as shown in table (1). The statistical analysis revealed there was significant association (P < 0.05) among age intervals of patients and control group.

(Table 1) Distribution of patients and control according to age groups

<table>
<thead>
<tr>
<th>Age groups(year)</th>
<th>Patients</th>
<th>Healthy control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>15-25</td>
<td>36 (23.37%)</td>
<td>27</td>
</tr>
<tr>
<td>26-35</td>
<td>94 (61.03%)</td>
<td>56</td>
</tr>
<tr>
<td>36-51</td>
<td>24 (15.58%)</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>154 (100%)</td>
<td>104</td>
</tr>
<tr>
<td>Mean ± SE</td>
<td>29.95± 0.68</td>
<td>27.58±0.51</td>
</tr>
<tr>
<td>$X^2$</td>
<td>33.510*</td>
<td>63.06*</td>
</tr>
<tr>
<td>P value</td>
<td>&lt;0.00001</td>
<td>&lt;0.00001</td>
</tr>
</tbody>
</table>

2. Seminal fluid parameters and types of infertility

The presented results of seminal fluid analysis in this study showed there were significant differences (p < 0.05) between fertile control group and infertile males (patients) in seminal fluid parameters as revealed in table (2). The seminal fluid viscosity was normal in 98% of fertile healthy males in comparison to 82.69% of infertile patients with normal viscosity while 17.3% of patients have abnormal result. Liquefaction time it was normal (within 30-60 min after collection of the sample) in 100% fertile healthy males while it was 74.03% of infertile males. Semen volume was normal in 100% and 90.38% of fertile healthy males and infertile males respectively. Sperm motility was normal in 100% and 75.96% of fertile healthy males and infertile males respectively while it was abnormal in 24.04% of infertile patients. Sperm vitality was normal in 100% of fertile healthy males while it was normal in 91.43% of infertile males. The mean of total sperm count was 259.98 ± 1.16 million sperm/ ejaculate and 180.61 ± 0.77 million sperm / ejaculate of fertile healthy males and infertile males respectively. The mean of sperm concentration was 62.73 ± 0.08
million sperm/ml for fertile healthy males while it was 54.32 ± 0.13 million sperm/ml for infertile males. The other seminal fluid parameters as semen color, seminal fluid pH and percentage of sperm normal morphology were revealed non-significant differences (P >0.05) as shown in table (2).

Regarding the type of infertility, the primary type of infertility was the more frequent type (83.65%) compared to secondary type of infertility (16.34%), and according to statistical analysis the difference was significant (P < 0.05) between two types of infertility as shown in (table 2).

Table (2) Seminal fluid parameters and types of infertility in patients and control.

<table>
<thead>
<tr>
<th>Semen Parameters</th>
<th>Fertile males (healthy control)</th>
<th>Infertile males (104)</th>
<th>T-test</th>
<th>(X^2)</th>
<th>P-value</th>
<th>Normal WHO ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity</td>
<td>(49/50) 98% within WHO normal range</td>
<td>(86/104) 82.69%</td>
<td>7.31</td>
<td>0.07</td>
<td>6.70</td>
<td>Abnormal viscosity when the thread exceeds 2 cm</td>
</tr>
<tr>
<td>liquefaction</td>
<td>(50/50) 100% within (30-60)min</td>
<td>(77/104) 74.03% normal and (27/104) 25.96% take more than 60 min</td>
<td>15.74</td>
<td>&lt;0.0001</td>
<td>40</td>
<td>Normal within (15-60 min) when take more than 60 min. must be recorded</td>
</tr>
<tr>
<td>Color</td>
<td>(50/50) 100% Gray-opalescent</td>
<td>(104/104) 100% Gray-opalescent</td>
<td>0</td>
<td>1</td>
<td></td>
<td>Gray-opalescent</td>
</tr>
<tr>
<td>Semen Volume (S.V.)</td>
<td>(50/50) 100% with normal semen volume</td>
<td>(94/104) 90.38% normal S.Vol. while 9.62% with S. Vol. &lt;1.5 with mean vol ± SD (3.228 ± 0.01) ml</td>
<td>43</td>
<td>&lt;0.01</td>
<td>02</td>
<td>normal semen volume &gt;1.5 ml</td>
</tr>
<tr>
<td>pH</td>
<td>(50/50) alkaline</td>
<td>(102/104) 98.07% alkaline while 1.93% (2/104) acidic</td>
<td>1</td>
<td>0.31</td>
<td>4</td>
<td>Alkaline</td>
</tr>
<tr>
<td>Total sperm count</td>
<td>259.48 ± 1.16 million sperm</td>
<td>180.61 ± 0.77 million sperm</td>
<td>56.35</td>
<td>&lt;0.0001</td>
<td>5</td>
<td>WHO (LRL) 39 \times 10^6 spermatoz</td>
</tr>
</tbody>
</table>
Sperm count per ml

| Sperm count per ml | 62.73 ± 0.08 million sperm | 54.32 ± 0.13 million sperm | 53.46 ± 0.0001 WHO (LRL) 15 x 10^6 spermatozoa per ml |

No. Males within WHO range of normal % of sperm morphology

| No. Males within WHO range of normal % of sperm morphology | (50/50) 100% within normal range >4% with mean percentage of normality (60.86 ± 0.06%) | (104/104) 100% within normal range >4% with mean percentage of normality (53.19 ± 0.05%) |

Sperm motility

| Sperm motility | (50/50) 100% have PR >32% and (PR+NP) >40% | (79/104) 75.96% have PR >32% and (PR+NP) >40% |

Sperm Vitality

| Sperm Vitality | (50/50) 100% normal vitality percentage >58% | 91.34% (95/104) with normal sperms vitality >58% |

Type of infertility

| Type of infertility | 83.65% (87/104) with primary infertility while 16.34% (17/104) was with secondary type of infertility |

3. Detection of anti-spermatozoa antibody in seminal plasma by ELISA test.

Overall prevalence of ASA in seminal plasma among studied population was 16.23% (25/154). Among healthy control group, anti-sperm antibody in seminal plasma were positive in 6% (3/50) and negative in 94% (47/50) with mean concentration of anti-sperm antibody was 24.97±3.7 U/ml (normal range 0 – 60 U/ml). Among infertile patients anti-sperm antibody was positive in 21.15% (22/104) whereas negative in 78.84% (82/104). The mean concentration of anti-sperm antibody was 40.71±2.32 U/ml. The statistical analysis revealed highly significant differences (P <0.05) in presence of ASA in seminal plasma of infertile patients compared to normal fertile males, also concentrations of ASA in seminal plasma was significantly higher in patients compared to healthy control males and as shown in (3).
Table (3) presence of anti-sperm antibody in the seminal plasma in the healthy control and patients as estimated by ELISA.

<table>
<thead>
<tr>
<th>ASA test result</th>
<th>Total number &amp; %</th>
<th>Fertile males (Healthy control)</th>
<th>Infertility males</th>
<th>T test</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>25 (16.23%)</td>
<td>N %</td>
<td>N %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>129 (83.76%)</td>
<td>3 %</td>
<td>22 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>154 (100%)</td>
<td>50 %</td>
<td>104 %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mean conc. ±SE

24.97±3.7 40.71±2.32 3.742* <0.00001

X² 5.702* P value 0.017

4. Distribution of anti-sperm antibody in relation to age groups of infertile patients and fertile males.

The ASA was detected in 21.15% of infertile male and in 6% of normal healthy control. The majority of infertile males (50%) with positive ASA in their seminal plasma was found in age interval of 26-35 y old, followed by 27.27% in age interval 36-51 y old and then 22.72% in age interval 15-25 y old as shown in (table 4). This difference was statistically not significant (p> 0.05) among age groups.

Age distribution in fertile healthy control shows that, the highest percentage of ASA was 66.66% (2/3) detected in age interval (26-35), followed by 33.33% (1/3) in age interval (15-25). This difference was statistically not- significant (p>0.05) as shown in (table 4).

Table (4) distribution of anti-sperm antibody in relation to age groups infertile males and fertile males

<table>
<thead>
<tr>
<th>Age groups</th>
<th>Total number (n)</th>
<th>Infertility negative</th>
<th>Fertility negative</th>
<th>Infertility positive</th>
<th>Fertility positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-25</td>
<td>36(23.37)</td>
<td>22</td>
<td>26.82</td>
<td>52</td>
<td>18.72</td>
</tr>
<tr>
<td>26-35</td>
<td>94(61.03)</td>
<td>45</td>
<td>54.87</td>
<td>112</td>
<td>54.87</td>
</tr>
<tr>
<td>36-51</td>
<td>24(15.58)</td>
<td>15</td>
<td>18.29</td>
<td>62</td>
<td>6.38</td>
</tr>
<tr>
<td>Total</td>
<td>154(100)</td>
<td>82</td>
<td>53.24</td>
<td>122</td>
<td>14.38</td>
</tr>
</tbody>
</table>

Mean conc. ±SE

32.69±1.84 77.26±2.32 19.91±1.94 104.72±29.78

X² 7.758

P value 0.256
5. Anti-spermatozoa antibody in relation to type of infertility.

Primary infertility accounted to 83.65% of patients while secondary type of infertility was (16.34%). According to the type of infertility, the majority of patients with positive ASA suffering from primary type of infertility (86.36%) but only 13.63% with secondary type of infertility (table 5). The difference was statistically significant (P<0.05). However, the mean concentration of ASA of infertile was 77.26 IU/ml compared to that among control group (32.69 IU/ml).

(Table 5.) Anti-sperm antibody in relation to types of infertility.

<table>
<thead>
<tr>
<th>Infertility type</th>
<th>Total number &amp; %</th>
<th>ASA test result</th>
<th>T value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Negative</td>
<td>Positive</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Primary</td>
<td>87 (83.65%)</td>
<td>68</td>
<td>82.92</td>
<td>19</td>
</tr>
<tr>
<td>secondary</td>
<td>17 (16.34%)</td>
<td>14</td>
<td>17.07</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>104 (100%)</td>
<td>82</td>
<td>100</td>
<td>22</td>
</tr>
<tr>
<td>Mean conc.±SE</td>
<td>32.69±1.84</td>
<td>77.26±2.32</td>
<td>10.858*</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>X²</td>
<td>71.122*</td>
<td>23.273*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P value</td>
<td>&lt;0.00001</td>
<td>&lt;0.00001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discussion:

Patients with primary infertility represent the more frequent visitors to the fertility clinics (84%) in this study which is almost consistent with other studies in Iraq from Al-Nahrain University, (80.9%) (Al-Dujaily, Chakir, & Hantoosh, 2012) and Dohok (77.2%) (Razzak & Wais, 2002) at the north of Iraq. However, in another study from India reported a lower rate (62%) of primary infertility type (Samal, Dhadwe, Gupta, & Gupta, 2012). The findings from studies above revealed that, the primary infertility seems to be higher than secondary infertility and this will support the result found in this study.

Because the body treat the sperms as foreign body. Autoimmune infertility has long been postulated as one of the causes of subfertility (Bohring et al., 2001), (Esteves et al., 2007) and The prevalence of anti-sperm antibodies in infertile men varies from 9%-36% (Jiang et al., 2016).

Rumke and Wilson first documented that, the presence of anti-spermatozoa antibodies in infertile males, and suggest the possible potential effect of
ASA in causes of infertility in males (Wilson, 1954).

In our study there was significant difference (p < 0.05) in the presence of anti-sperm antibody in seminal fluid between fertile healthy control group (6%), and infertile patients (21.15%). However, some studies reported ASA rates lower than the figure in this study (Hossain, Islam, Aryal, & Madanes, 2007). While another study in Kirkuk University almost in agreement with our finding (26.6%) of infertile patients who shows ASA in their seminal fluids plasma (p< 0.05) and considered statistically significance (Hussein, 2012). The results from this study showed that the majority of infertile patients with ASA was in age group of 25-35 years of age (50%) which is comparable to (Arora, SUDHAN, & Sharma, 1999) study which revealed that, 64% of sub-fertile patients were in the age group of 30-35. There were only 3% patients between the ages of 20 and 25 years and only 2% between the ages of 40-50 years (Arora et al., 1999).

Also this study revealed that, the positive ASA results were distributed to 86.36% with primary type of infertility and 13.63% with secondary type of infertility which is consistent with other studies reported by (Foresta et al. 2015) and in an Indian study (Khatoon, Chaudhari, Singh, & Prajapati, 2011) which included 109 infertile couples revealed that, out of which 71 were suffering from primary infertility & 38 were of secondary infertility, among those with primary infertility couples 52.12% were positive for ASA and in secondary infertility couples the incidence of ASA was 39.47% (Khatoon et al., 2011) which is almost consistent with the finding in this study. However, another study performed by (Damianova, Dimitrova-Dikanarova, Kalaïdzhiev, & Vatev, 1999), revealed that no significant difference in the incidence of anti-sperm antibodies among primary and secondary infertility and the highest incidence of anti-sperm antibodies amongst patients with primary unexplained infertility (Damianova et al., 1999) that in agreement with this study where there was non-significant difference in the percentage of ASA in primary and secondary infertility.

References


Samal, S., Dhadwe, K., Gupta, U., & Gupta, N. K. (2012). Epidemiological study of


التقييم السيرولوجي لوجود اضداد النطف في الرجال العقميين في محافظة ذي قار

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الذكتيرة أياىاس صالح الخياط
استار مساعذ
فرعwordpress - كلية الطب جامعت ري قار

الخلاصة:
أجريت هذه الدراسة (case control study) في محافظة ذي قار، جنوب العراق، شملت ما مجموعه 154 شخصًا (منهم 104 مرضي يعانون من البقاء، في حين كان مجموعه السيطرة يتكون من 50 من الرجال الخصبيين، كان المرضى من الرجال الذين يراجعون مركز العقم في مستشفى الإمام الحسين التعليمي من 20/10/2012 إلى 16/1/2016 الذين تتراوح أعمارهم بين 35-40 سنة مع متوسط العمر (19.95 ± 5.88 واما بالنسبة الى (0.5) رجل الآخرين الذين يمثلون مجموعه السيطرة كان معدل أعمارهم تتراوح بين (23-35) سنة مع متوسط العمر كان (27.58 ± 0.51). تم جمع المرضى بتفاقي كاملاً عن تاريخ حالتهم الطبية، بالإضافة إلى نوع العقم (البدياني أو الثاني). تم جمع عينات السائل المنوي بعد ثلاثة أيام و ( seminal fluid analysis) من الامتاع الجنسي. تم فحص جميع المرضى ومجموعه السيطرة بطريقة حسب ضوابط كتاب منظمة الصحة العالمية. في إجراء فحص السائل المنوي سنة 2010 الطبيعة الخاصة للentrici من ذلك تم فحص كلا المجموعتين بطريقة ELISA في السائل المنوي (ASA )

· أظهرت النتائج للفحص العام للسائل المنوي أن هناك اختلافات كبيرة (P<0.05) بين مجموعه السيطرة والمريضي في رضوة السائل المنوي، وقت التسريحة، حجم السائل المنوي، حركية الهيدرات المنوية، وعدد الهيدرات المنوية الكلي في حين كشفت النتائج أن لم تكن هناك اختلافات ذات قيمة إحصائية في صفات السائل المنوي (لون السائل المنوي، ودرجة الحموضة (pH) واختلافات جينية من السائل المنوي)

· في حين أظهرت نتائج الفحص السيرولوجي بطريقة ELISA للتحدي عن الصفات المنوية ما يلي

· ان الانتشار العام في البلازما المنوي في 154 رجل (كلا المجموعتين التي در جال الدراسة من الرجال) كانت 17.6% (25/142). وقد كانت نتيجة فحص وجود جسم مضاد للحياة المنوية في بلازما السائل ASA الموتي في مجموعه السيطرة إيجابية في 3% (3/88) وسلبية في 97% (85/88) مع متوسط تزكيز (ASA المنوي) (المدى الطبيعى 0-1600) مل / IU = 34.97 ± 2.62 مل / IU = 0.0467 / 2.62 (I) و 0.0467 / 2.62 (I) وكان متوسط تزكيز ASA إيجابي في 21.15% (22/104) و سلبي في 78.85% (82/104). وكان متوسط تزكيز (ASA المنوي) (المدى الطبيعى 0-1600) مل / IU = 0.0467 / 2.62 (I) وكان متوسط تزكيز ASA العلمي للعلاج المنوي للنطف 0.0467 / 2.62 (I) و كشف التحليل الإحصائي عن اختلافات كبيرة

· في وجود ASA المنوي في البقاء المنوي الذين يعانون من البقاء مقارنة إلى الذكور ASA المنوي، كما كانت تركيزات في البلازما المنوية أعلى بكثير في المرضى. المخلص أن تركيز ASA كان على نطاقي بين المرضى الذين يعانون من البقاء مقارنة إلى مجموعة السيطرة.