References

Books

2. C. B. Nagiri, Sonal Panchal. Handbook of Infertility and Ultrasound. Dr Nagoi’s Institute for Infertility and IVF.
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Research paper


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103. P. Terriou, C. Sapin, C. Giorgetti, E. Hans, J. Spach, R. Roulier, Embryo score is a better predictor of pregnancy than the number of transferred embryos or female age, Fertility and Sterility 75 (3) (2001) 525–531.


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130. Scott L., Pronuclear scoring as indicator of embryo development. Biomed Online 2003;6:57-70


118
Table 8.1: Cumulative Selection Score of embryo

<table>
<thead>
<tr>
<th>SRNo</th>
<th>Gametes</th>
<th>SScG=SscO+SscS PZ</th>
<th>SScZ</th>
<th>EC</th>
<th>SScE2</th>
<th>SScE4</th>
<th>CSScE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Round shape, Colorless ZP, small round 1st PB with smooth surface, Small PVS, Clear cytoplasm with homogeneous fine granularity, Absence of vacuoles, SER. retractile bodies. ScO=5</td>
<td></td>
<td>Normal cytoplasm 2 Equal sized PN, Equal, Symmetrical NPB 9 x 10 = 90</td>
<td></td>
<td>Two equal sized blastomeres single nucleus Frag. ≤10% homogenous cytoplasm 9 x 100 = 900</td>
<td></td>
<td>4 unequal sized (D=2.1) blastomeres single nucleus Frag. ≤10% homogenous cytoplasm 7 x 1000 = 7000</td>
</tr>
<tr>
<td>2/1</td>
<td>Round shape, granular ZP, small round 1st PB with smooth surface, debris in PVS (D=3.3), Dark cytoplasm with homogeneous fine granularity, Absence of vacuoles, SER. retractile bodies. D=2, ScO=3</td>
<td>3+4=7</td>
<td>Granular cytoplasm, with vacuol (D = 4.3), 2 Equal sized unaligned PN (D = 3.2) un Equal (D = 4.1), Symmetrical NPB 3 x 10 = 30</td>
<td></td>
<td>Two equal sized blastomeres single nucleus Frag. ≤10% granular cytoplasm (D = 5.1) 7 x 100 = 700</td>
<td></td>
<td>4 unequal sized (D=2.1) blastomeres single nucleus Frag. ≤10% granular cytoplasm (D = 5.1) 5 x 1000 = 5000</td>
</tr>
</tbody>
</table>
Table 8.1: Cumulative Selection Score of embryo

<table>
<thead>
<tr>
<th>SRNo</th>
<th>Pt ID</th>
<th>Gametes</th>
<th>SScG =ScO+Sc SPZ</th>
<th>SScZ</th>
<th>EC</th>
<th>SScE2</th>
<th>SScE4</th>
<th>CSScE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/3</td>
<td></td>
<td>Round shape, Colorless ZP, small round 1&lt;sup&gt;st&lt;/sup&gt; PB with smooth surface, large PVS(D =3.2), granular cytoplasm with(D =4.1), Absence of vacuoles, SER. retractile bodies.</td>
<td>3+3=6</td>
<td>Normal cytoplasm 2 Equal sized PN, Equal, Symmetrical NPB</td>
<td>Two unequal sized (D = 2.1) blastomeres single nucleus Frag. ≤20% granular cytoplasm(D = 5.1)</td>
<td>Two(D = 1.1) unequal sized (D = 2.1) blastomeres single nucleus Frag. ≤20% granular cytoplasm(D = 5.1)</td>
<td>3796</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Amorphous head (D=1.1)</strong> Straight, cylindrical misprice slightly thicker than tail. Single, unbroken straight tail with a narrower terminal segment, without kinks or coils. Cytoplasm with no cytoplasmic droplets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4/5</td>
<td></td>
<td><strong>Oblong shape (D=1.1)</strong>, Colorless ZP, small round 1&lt;sup&gt;st&lt;/sup&gt; PB with smooth surface, Small PVS, Clear cytoplasm with homogeneous fine granularity, Absence of vacuoles, SER. retractile bodies.</td>
<td>4+4=8</td>
<td>Normal cytoplasm Vacuols (D=5.2) 2 Equal sized PN, Equal, Symmetrical NPB</td>
<td>Two unequal sized (D = 2.1) blastomeres single nucleus Frag. ≤20% homogenous cytoplasm</td>
<td>4 unequal sized (D=2.1) blastomeres single nucleus Frag. ≤25% (D=3.2) homogenous cytoplasm</td>
<td>5778</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oval headStraight, cylindrical misprice slightly thicker than tail. Single, unbroken straight tail with a narrower terminal segment, without kinks or coils. Cytoplasm with no cytoplasmic droplets</td>
<td>7x10=70</td>
<td>7x100=700</td>
<td>5x1000=5000</td>
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Sc SPZ= 3

Sc SPZ= 4
<table>
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<th>SRNo</th>
<th>Gametes</th>
<th>SScG =ScO+ScS PZ</th>
<th>SScZ</th>
<th>EC</th>
<th>SScE2</th>
<th>SScE4</th>
<th>CSScE</th>
</tr>
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<tbody>
<tr>
<td>5/13</td>
<td>round, Colorless ZP, small round 1st PB with smooth surface, Small PVS, Clear cytoplasm with homogeneous fine granularity, Absence of vacuoles, SER. retractile bodies. ScO=5</td>
<td>5+4=9</td>
<td>Normal cytoplasm. 2 un Equal sized PN (D = 2.1) Equal, Symmetrical NPB 7x10=70</td>
<td>Two equal sized blastomeres single nucleus Frag. ≤20% homogenous cytoplasm 9x100=900</td>
<td>4 unequal sized (D=2.1) blastomeres single nucleus Frag. ≤10% homogenous cytoplasm 7x1000=7000</td>
<td>7979</td>
<td></td>
</tr>
<tr>
<td>6/17</td>
<td>Oval head Straight, cylindrical misprice slightly thicker than tail. Single, unbroken straight tail with a narrower terminal segment, without kinks or coils. Cytoplasm with no cytoplasmic droplets Sc SPZ= 4</td>
<td>5+4=9</td>
<td>Normal cytoplasm. 2 un Equal sized PN (D = 2.1) Equal, Symmetrical NPB 7x10=70</td>
<td>Two unequal sized (D = 2.1) blastomeres single nucleus Frag. ≤20% homogenous cytoplasm 7x100=700</td>
<td>4 unequal sized (D=2.1) blastomeres single nucleus Frag. ≤25% (D=3.2) homogenous cytoplasm 5x1000=5000</td>
<td>5779</td>
<td></td>
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</table>
Table 8.1: Cumulative Selection Score of embryo

<table>
<thead>
<tr>
<th>SRNo</th>
<th>Pt ID</th>
<th>Gametes</th>
<th>SScG =ScO+Sc SPZ</th>
<th>SScZ</th>
<th>EC</th>
<th>SScE2</th>
<th>SScE4</th>
<th>CSScE</th>
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<tbody>
<tr>
<td>7/18</td>
<td></td>
<td>round, Colorless ZP, small round 1&lt;sup&gt;st&lt;/sup&gt; PB with smooth surface, Small PVS, Clear cytoplasm with homogeneous fine granularity, Absence of vacuoles, SER. retractile bodies. <strong>ScO=5</strong></td>
<td>5+4=9</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Oval headStraight, cylindrical misprice slightly thicker than tail. Single, unbroken straight tail with a narrower terminal segment, without kinks or coils. Cytoplasm with no cytoplasmic droplets <strong>Sc SPZ= 4</strong></td>
<td></td>
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</tr>
<tr>
<td>8/22.1</td>
<td></td>
<td>Round, Colorless ZP, small round 1&lt;sup&gt;st&lt;/sup&gt; PB with smooth surface, <strong>large PVS(D =3.2)</strong>, Clear cytoplasm with homogeneous fine granularity, Absence of vacuoles, SER. retractile bodies. <strong>ScO=4</strong></td>
<td>5+4=9</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Oval headStraight, cylindrical misprice slightly thicker than tail. Single, unbroken straight tail with a narrower terminal segment, without kinks or coils. Cytoplasm with no cytoplasmic droplets <strong>Sc SPZ= 4</strong></td>
<td></td>
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</tr>
<tr>
<td>SRNo</td>
<td>Pt ID</td>
<td>Gametes</td>
<td>SScG =ScO+Sc SPZ</td>
<td>SScZ</td>
<td>EC</td>
<td>SScE2</td>
<td>SScE4</td>
<td>CSScE</td>
</tr>
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<tr>
<td>9/135</td>
<td></td>
<td>Round shape, Colorless ZP, small round 1st PB with smooth surface, Small PVS, granular cytoplasm with homogeneous fine granularity, Absence of vacuoles, SER. retractile bodies. ScO=5</td>
<td>5+4=9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oval head: Straight, cylindrical misprize slightly thicker than tail. Single, unbroken straight tail with a narrower terminal segment, without kinks or coils Cytoplasm with no cytoplasmic droplets Sc SPZ= 4</td>
<td>Normal cytoplasm , 2 Equal sized PN Equal, scattered NPB (D = 4.3)</td>
<td>7x10=70</td>
<td></td>
<td>Two equal sized blastomeres single nucleus Frag. ≤20% homogenous cytoplasm</td>
<td>4 equal sized blastomeres single nucleus Frag. ≤25%(D=3.2) homogenous cytoplasm 7x1000= 5000</td>
<td>7979</td>
</tr>
<tr>
<td>10/126</td>
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<td>Round shape, Colorless ZP, small round 1st PB with smooth surface, Small PVS, Clear cytoplasm with homogeneous fine granularity, Absence of vacuoles, SER. retractile bodies. ScO=5</td>
<td>5+4=9</td>
<td></td>
<td></td>
<td></td>
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<td>Normal cytoplasm , 2 Equal sized PN Equal, scattered NPB (D = 4.3)</td>
<td>7x10=70</td>
<td></td>
<td>Two equal sized blastomeres single nucleus Frag. &gt; 20%(D =3.2) homogenous cytoplasm</td>
<td>4 equal sized blastomeres single nucleus Frag. ≤10% homogenous cytoplasm 9x1000= 9000</td>
<td>9779</td>
</tr>
</tbody>
</table>
Publications


Conferences


Participation

1) “Advanced Hands on Training Course on Clinical Embryology” at ‘Center for Reproductive Education and Specialist training & BACC Health Care Pvt. Ltd. Bangalore.

2) “Intensive hands on training on ICSI and Vitrification” at Chennai fertility Center & Research Institute, Chennai.

3) Participated in work shop on Andrology: Advances in Sperm Pathologies, testing and selection. Held at Le Meridien Conventional center, Kochi, Kerala on 18th September, 2015 at Le Meridien Conventional center, Kochi, Kerala.

4) 4th International Congress of Academy of clinical embryologists India. Held on 19th and 20th September, 2015 at Le Meridien Conventional center, Kochi, Kerala.
5) Participated in work shop on Conventional IVF. Organized by Academy of clinical embryologists held in Indore, on 8th August 2014.

6) 3rd INTERNATIONAL CONFERENCE’ Organized by Academy of clinical embryologists. Held at on August 9th, and 10th, 2014 at Indore.


9) ‘Empowering excellence in embryology’ conference 2013, conducted by EARTH & ALPHA Scientists in Reproductive Medicine, Switzerland, at Mumbai on September 29th, 2013.

10) Hands on workshop on Verification Techniques- held at Dr. Lad’s Navjeevan Hospital, Center for Reproductive Health Care, Nasik on 22nd September 2013.

11) Participated in work shop on IUI as faculty member at ‘Pravaranager Medical College Workshop ‘EMBRYO CULTURE SYSTED AND EMBRYO SELECTION’ organized by Academy of Clinical embryology, 9th August, 2013.


14) ‘Simplifying infertility management and an update.’ hosted by Ruby Hall IVF Center, on 1\textsuperscript{st} and 2\textsuperscript{nd} March 2003.

15) ‘Seminar on laboratory investigations in ‘DIABETES MELLITUS’–Organized by Association of Clinical Biochemistry of India. Pune Chapter. Held at the Abasaheb Garware College, Karve Road. on 11\textsuperscript{th} February 1996,