

## A Study of Luteinizing Hormone in Patients with Infertility and Recurrent Spontaneous Abortion

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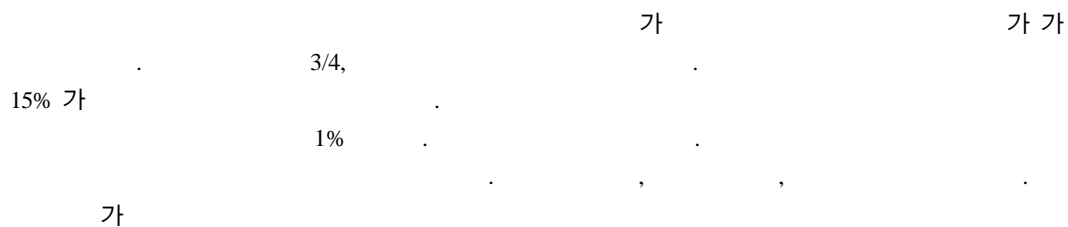
**Objective:** To evaluate luteinizing hormone (LH) in patients with infertility and recurrent spontaneous abortion.

**Material and Method:** LH was tested by solid phase immunoradiometric assay based on monoclonal and polyclonal anti-LH antibodies.

**Results:** Of 100 infertile patients, the number of less than 5 mIU/ml, 5~10 mIU/ml, greater than 10 mIU/ml in LH level was 67 (67%), 22 (22%), 11 (11%), respectively. Of 100 patients with recurrent spontaneous abortion, the number of less than 5 mIU/ml, 5~10 mIU/ml, greater than 10 mIU/ml in LH level was 79 (79%), 18 (18%), 3 (3%), respectively. There was a significant difference between patients with infertility and recurrent spontaneous abortion only in the group with LH level greater than 10 mIU/ml ( $p=0.0325$ ).

**Conclusions:** High LH in the follicular phase is known to decrease pregnancy rate and increase abortion rate. But in this study the incidence of high LH in patients with recurrent spontaneous abortion was low. On the contrary, there was a significant increase of LH in infertile patients. So recurrent spontaneous abortion does not seem to be related to high LH level.

**Key Words:** LH, Infertility, Recurrent spontaneous abortion



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40%  
90%

가

가

가

1.  
1998 1 1 2001 12 31  
100  
100

2.  
DPC (USA) Coat-A-Count LH IRMA  
monoclonal anti-LH antibodies  
solid-phase immu-  
noradiometric assay . Liquid phase <sup>125</sup>I-labeled  
polyclonal anti-LH antibodies polystyrene

**Table 1.** LH levels in patients with infertility and re-  
current spontaneous abortion

LH	Infertility	RSA	p value
5 mIU/ml	67 (67%)	79 (79%)	.3206
5~10 mIU/ml	22 (22%)	18 (18%)	.5271
10 mIU/ml	11 (11%)	3 (3%)	.0325
Total	100	100	

LH: luteinizing hormone  
RSA: recurrent spontaneous abortion

tube wall monoclonal anti-LH antibodies가  
(intraassay precision)  
1.0~1.6% (interassay precision)  
2.2~7.1% (sensitivity) 0.15 mIU/ml  
(specificity) LH F-

SH, hCG, TSH 가 .  
3.

LH

the SAS System for  
Windows release 8.1 (SAS Institute Inc., Cary, NC, USA)

100 5 mIU/  
ml 67 (67%), 5~10 mIU/ml  
22 (22%), 10 mIU/ml 11 (11%)  
. 100  
5 mIU/ml 79 (79%), 5~10  
mIU/ml 18 (18%), 10 mIU/ml  
3 (3%)  
p-value 5  
mIU/ml .3206, 5~10 mIU/ml  
.5271, 10 mIU/ml .0325  
10 mIU/ml

(Table 1).

Clomiphene citrate

48 (pulsatile) 67  
 hormone: GnRH (gonadotropin releasing hormone) 가  
 26% 23 8 4 8  
 10 43% 가 9  
 13% 가  
 (oocyte maturation inhibitor) 가 10  
 hormone: LH (luteinizing hormone) (gamete) 11,12  
 가 3 27 9 33% 가  
 4 가 13  
 가 가  
 (folliculogenesis) 가  
 4 193 10 IU/L 가 46  
 31 20 (luteal phase defect)  
 (65%)  
 12% estradiol proges-  
 57% terone 14  
 가 (downregulation)  
 Clomiphene citrate 15  
 가 5 buserelin  
 clomiphene citrate 16

buserelin 가 peptide Inhibin  
<sup>14</sup> peptide  
가 inhibin 가  
<sup>21</sup>  
(granulosa cell) 가  
cAMP 가  
inhibin peptide  
(gonadotropin surge attenuating  
factor: GnSAF)  
(gonadotropin surge inhibiting factor: GnSIF)  
<sup>22,23</sup>  
가  
가 가 가  
<sup>24</sup>  
(follicular atresia) 가  
가  
(endogenous)  
pro- 가 <sup>25</sup>  
staglandin 가  
<sup>17</sup>  
<sup>18</sup>  
<sup>19</sup>  
(desensitization) 가 <sup>26,27</sup>  
<sup>28,29</sup>  
(body mass index: BMI)가 가  
가 <sup>20</sup> 가  
가

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