

# Outcome of expectant management versus surgical treatment of spontaneous first-trimester miscarriage: Patient-Oriented Management Approach.

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**Objectives:** To compare clinical outcomes of expectant management versus surgical treatment of spontaneous first trimester miscarriage.

**Methods:** 415 patients treated as spontaneous first trimester miscarriage at our clinic from October 2004 through December 2011. Miscarriage was diagnosed by ultrasonography at least three weeks apart from the first recognition of gestational sac in the uterine cavity. Women who need treatment were offered a choice of expectant management or surgical treatment. Women undergoing expectant management were informed that their choices were changeable and outpatient clinic was available for 24 hours. Main outcome measures were a spontaneous expulsion of GS, the number of women completing their miscarriage within each week of management, and complications (emergency visit, chemical curettage, GS in cervix, infection, bleeding and unplanned D&C).

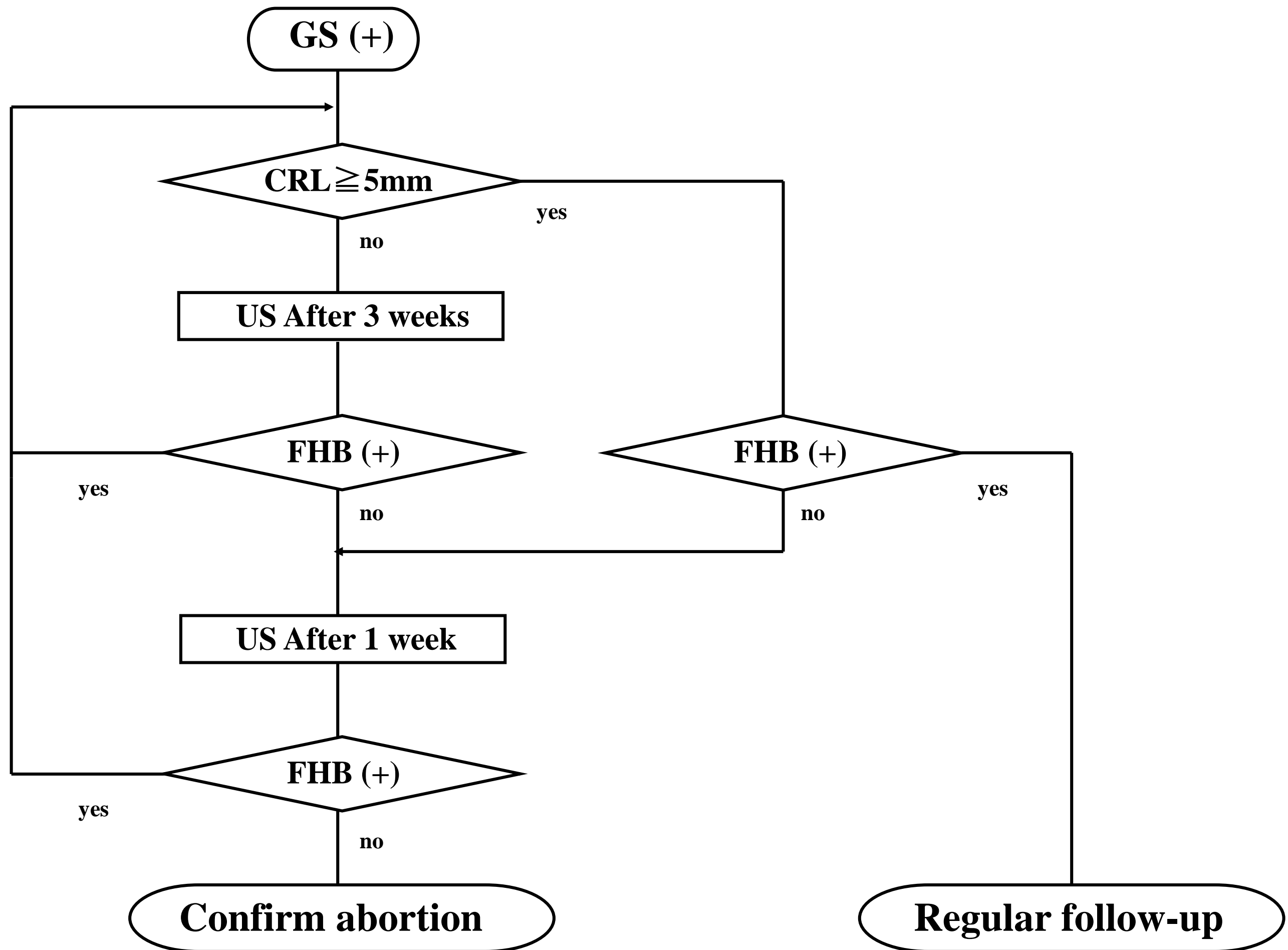
**Results:** One hundred forty six cases were aborted before diagnosis of miscarriage. One hundred sixty five cases chose surgical and 104 cases chose expectant management respectively. All gestational sacs were expelled spontaneously and only 1 (1%) needed curettage in expectant management group. The complication rates between expectant and surgical management were not different.

**Conclusion:** Under the well prepared conditions, expectant management was considered to be as safe as surgical treatment.

## はじめに

平成17年10月から23年9月の間、一度でも胎嚢が確認され、当院で流産が確認されたかあるいは手術治療を行った415例を対象とした。

当院では稽留流産に対して、いつでも治療法を変更できること、24時間対応すること、そして自然流産の経過を説明し、妊婦本人に待機治療か手術治療のいずれかを選択してもらっている。今回、それぞれの治療法の予後について検討を加えたので報告する。



**Fig 1. Clinical management of abortion**

**Table 1. characteristics of patients**

	<b>Pre-confirmation (n=146)</b>	<b>expectant (n=165)</b>	<b>surgical (n=104)</b>
<b>Age (years)</b>	<b>33.0±4.7</b>	<b>33.5±4.4</b>	<b>32.4±4.3</b>
<b>GW at first visit (days)</b>	<b>42.9±7.6</b>	<b>44.1±7.7</b>	<b>45.3±10.2</b>
<b>Parity</b>			
<b>null</b>	<b>55 (37.7)</b>	<b>62 (37.6)</b>	<b>40 (38.5)</b>
<b>para</b>	<b>91 (62.3)</b>	<b>103 (62.4)</b>	<b>64 (61.5)</b>
<b>Previous abortion</b>			
<b>none</b>	<b>117 (80.1)</b>	<b>130 (78.8)</b>	<b>77 (74.0)</b>
<b>CRL ≥ 5mm</b>	<b>13 (8.9)</b>	<b>65 (39.4)</b>	<b>30 (28.8)</b>

**Pre-confirmation**

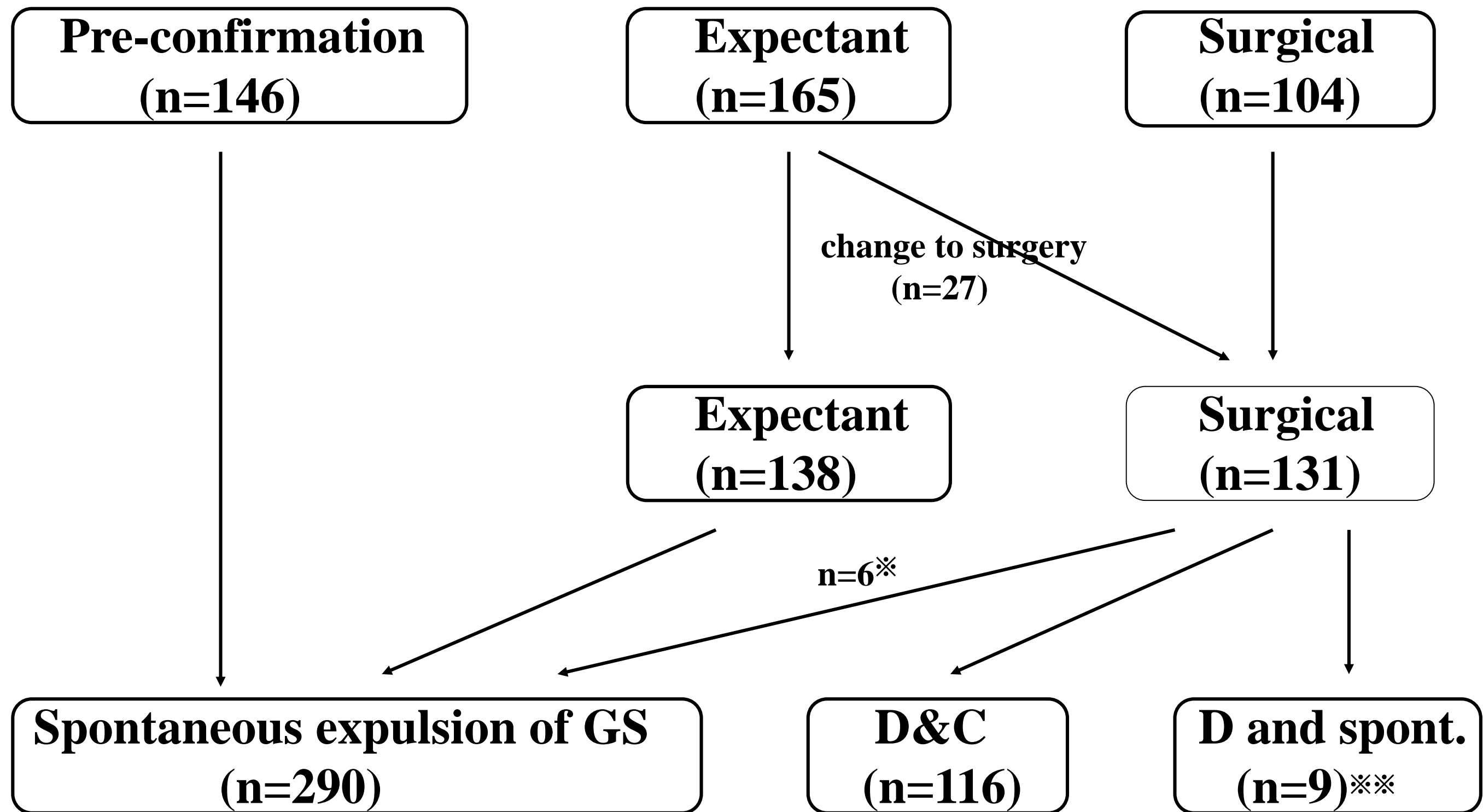
流産確認前にGSが排出された者

**Expectant**

流産確認後に待機治療を選択した者

**Surgical**

流産確認後に手術治療を選択した者



※ 手術待機中に自然排出  
 ※※ ラミナリア挿入後に自然排出

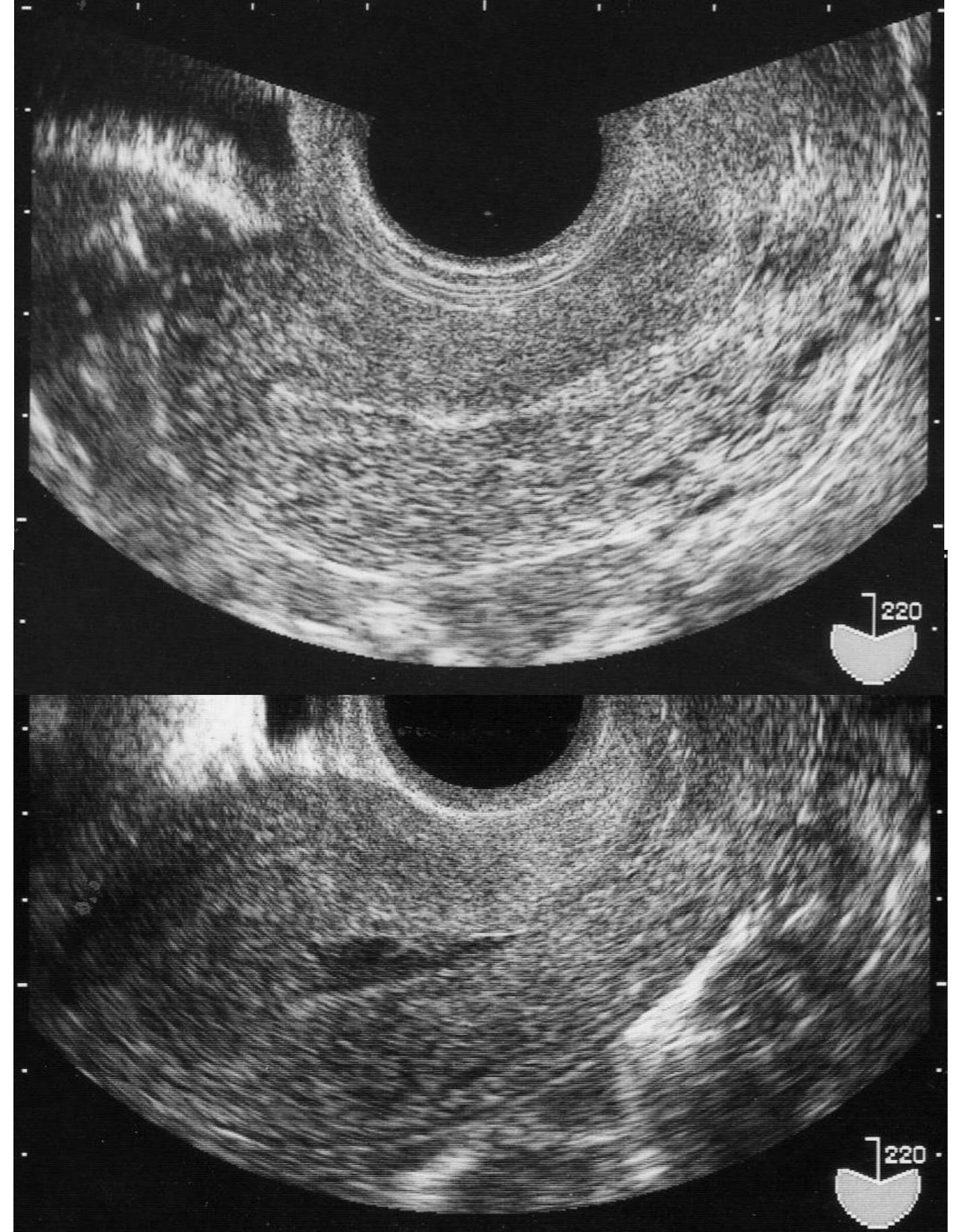
方針変更の理由  
 不安: 24例  
 下腹部痛: 1例  
 出血: 1例  
 悪阻: 1例

**Fig 2. Flow of patients**



### **Expulsion of GS**

**GS is invisible. Ut. cavity is filled with heterogeneous echo.**



### **Complete abortion**

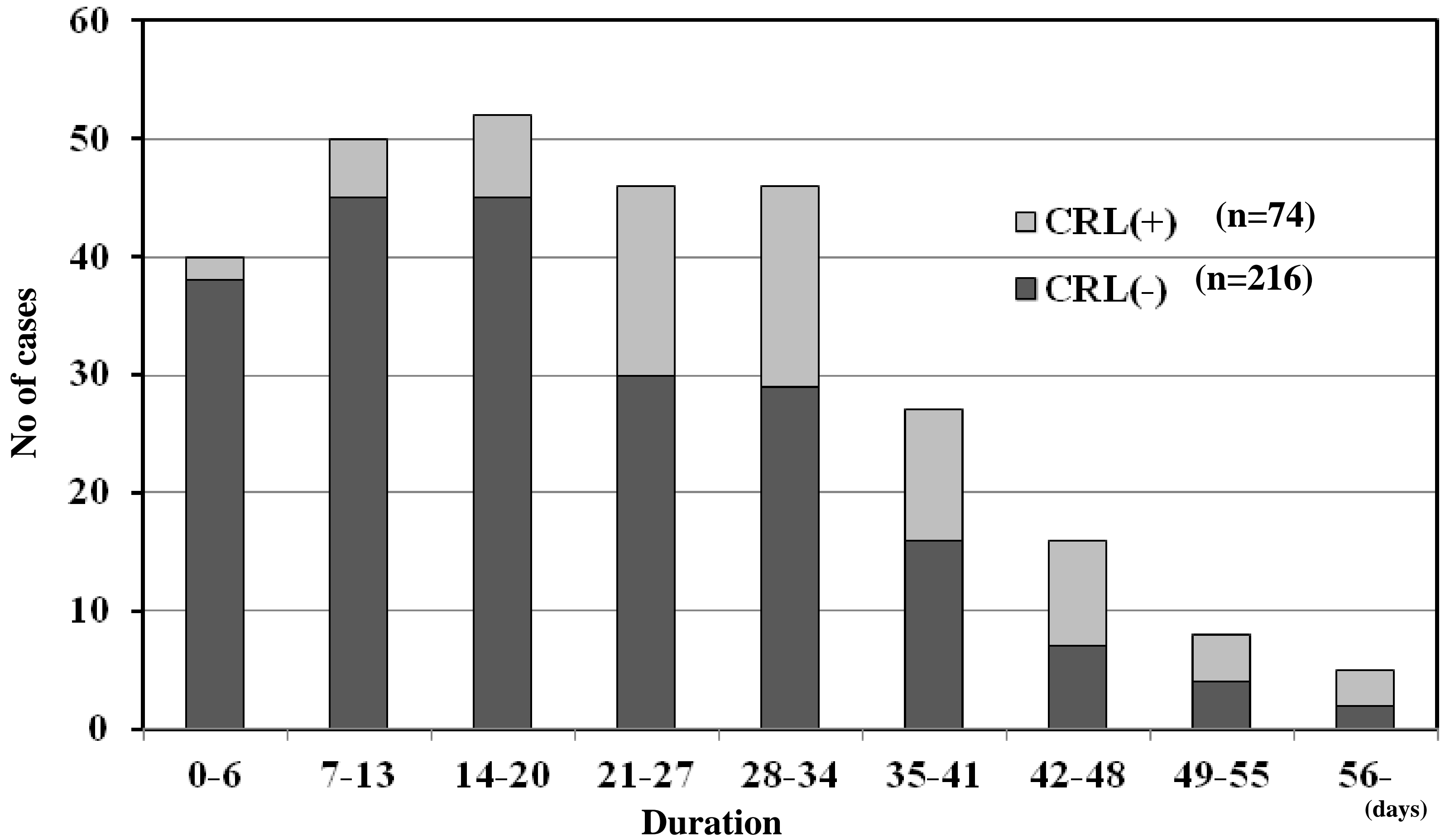
**Endometrium is thin with or without fluid**

**Fig 3. Definitions of abortion using sonographic images**

**Table 2. Outcomes of spontaneous expulsion of GS versus D&C**

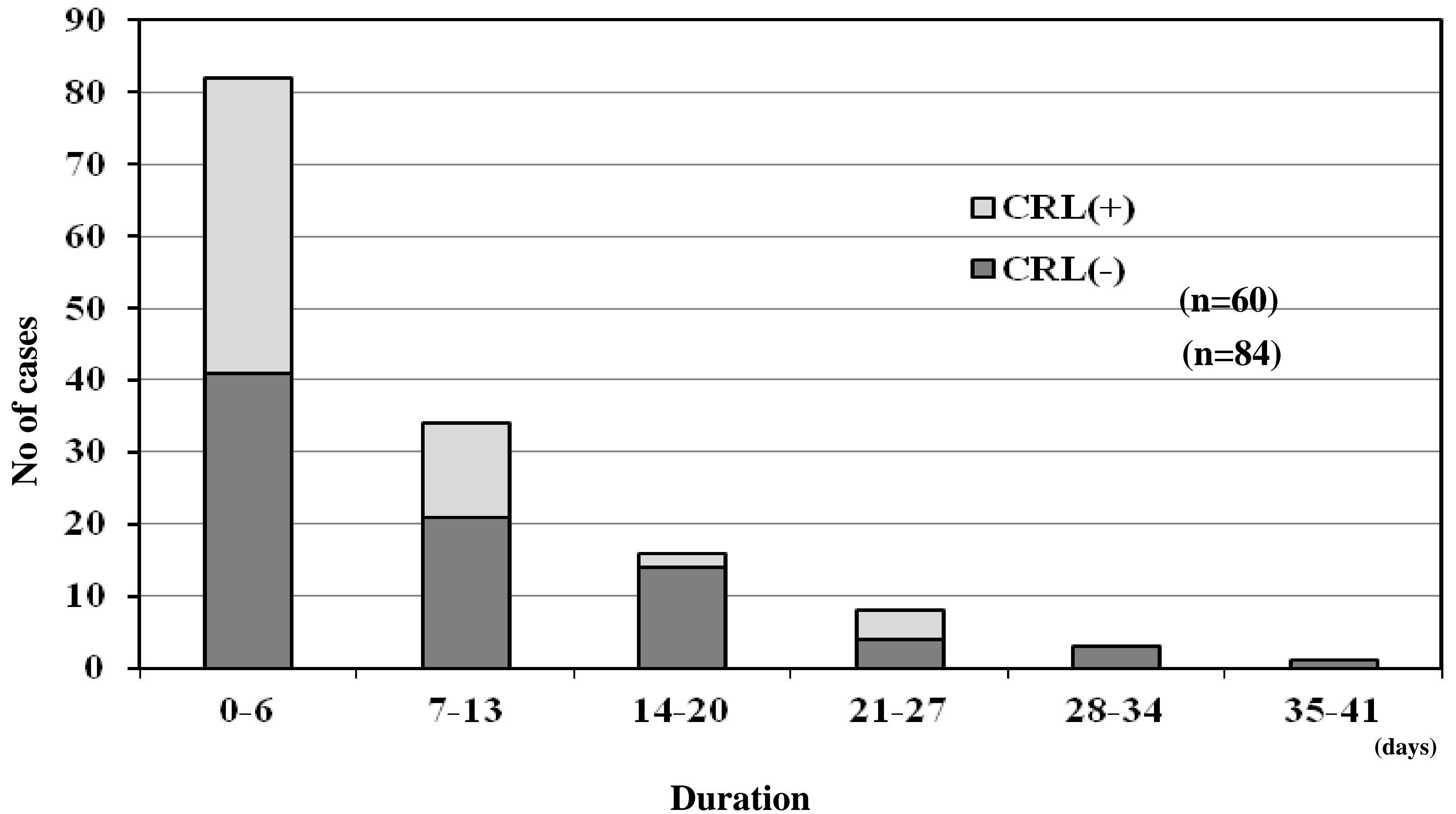
	<b>Pre-confirm (n=146)</b>	<b>Post-confirm (n=144)</b>	<b>D&amp;C (n=116)</b>
<b>Emergent visit (19:00~8:00)</b>	<b>15</b>	<b>9</b>	<b>—</b>
<b>Time to complete abortion*</b>			
<b>≥ 2weeks</b>	<b>5</b>	<b>11</b>	<b>10</b>
<b>≥ 4weeks</b>	<b>0</b>	<b>3</b>	<b>3</b>
<b>Chemical curettage</b>	<b>0</b>	<b>3</b>	<b>2</b>
<b>GS in cervics</b>	<b>2</b>	<b>3</b>	<b>0</b>
<b>Infection</b>	<b>1</b>	<b>0</b>	<b>3</b>
<b>Bleeding</b>	<b>0</b>	<b>2</b>	<b>1</b>
<b>Unplanned D&amp;C</b>	<b>0</b>	<b>1</b>	<b>0</b>

※: Time from expulsion of GS

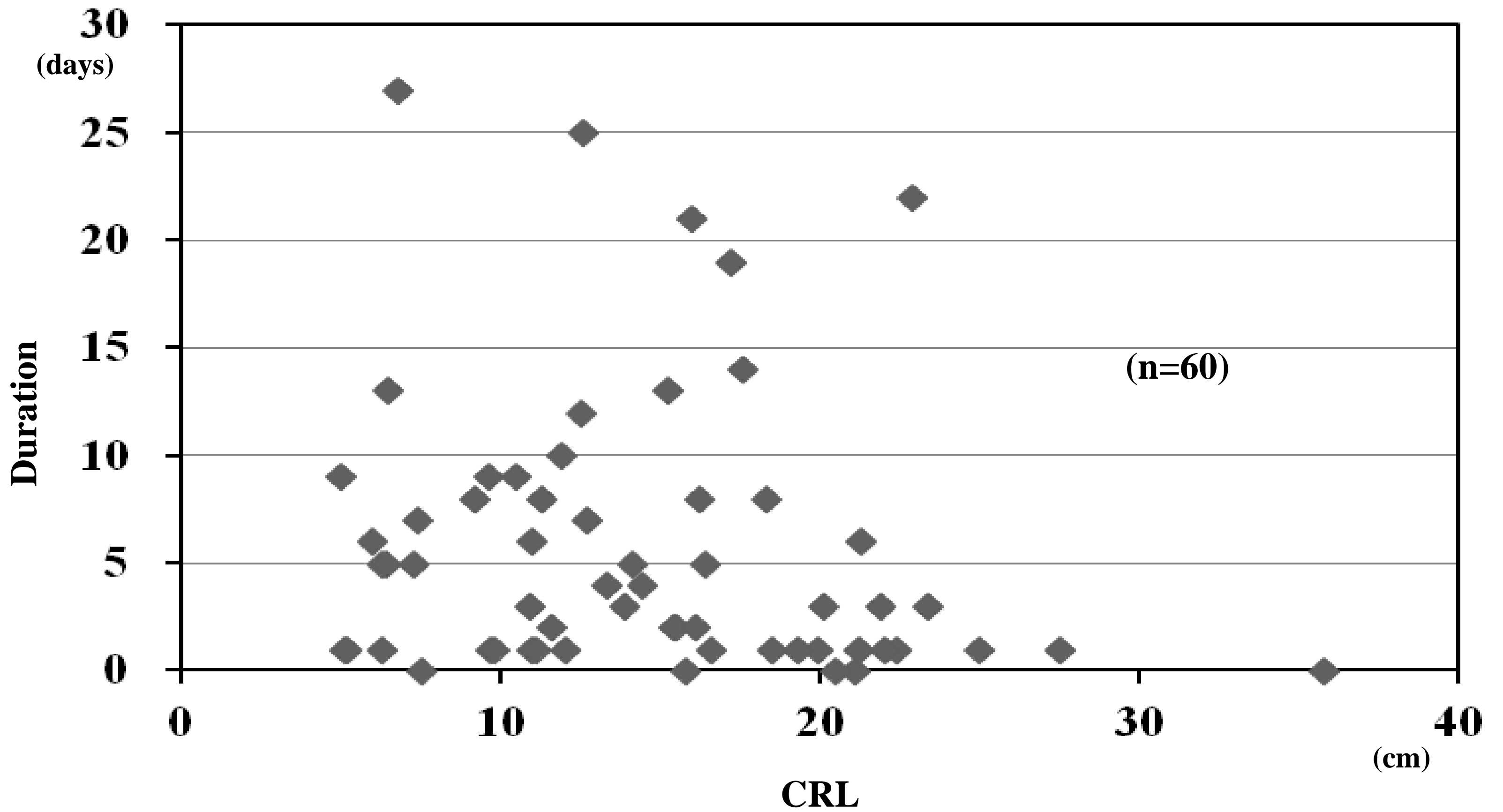


**Fig 4. Duration from recognition to expulsion of GS**





**Fig 5. Duration from confirmation of abortion to expulsion of GS**



**Fig 6. Relation between CRL and duration  
from confirmation of abortion to expulsion of GS**

## 結論

1. 子宮内に胎嚢が一度でも確認された流産に対しては、正確な情報を提供することにより、待機治療が手術治療と同等に安全な治療法になり得ることが確認された。
2. CRLの値と、流産の時期には相関が認められなかった。
3. 経膈超音波の普及により、流産の臨床的分類は再考の必要があり、またその治療法も再検討する必要がある。