Results

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This study comprised 20 infertile women, their ages ranged between 20-30 years with mean age (26.15 ± 3.2 years). 17 cases of them were primary in fertility (85%) with mean age (25.6 ± 3.2 years) and 3 cases were secondary infertility (15%) with mean age (29.0 ± 1.0 years) as shown in **table(1)**.

Table (1) : Shows Mean ($\bar{x}$) ± standard deviation (SD) of age

cases	No	%	age (years) $\bar{x}$ ± SD
1ry infertility	17	85.0	25.6 3.2
2ry infertility	3	15.0	29.0 1.0
total	20	100	26.15 3.20

Table (2) : Shows comparison of **Hy-CO-SY** with **HSG** in term of tubal patency of the left side

Left tubes	**HSG**		**HY-CO-SY**	
	No	%	No	%
patent tubes	17	85.0	18	90.0
blocked tubes	2	10.0	2	10.0
no significant spill	1	5.0	-	-

As shown in **table (2)**, in cases of **Hy-CO-SY** there was 18 cases of left sided patency (90%) and 2 cases of left sided block (10%), while in cases of **HSG** there was 17 cases of left sided patency (85%), 2 cases of left sided block (10%) and one case showed no significant spill (5%).

In the left tube:

Sensitivity 66.7%

Specificity 100%

Positive predictive value 100%

Negative predictive value 94.4%

Accuracy 95%

$X^2 = 12.95$ $P < 0.001$

Table (3) : Shows comparison of **HY-CO-SY** with **HSG** in term of tubal patency of the right side

Right tubes	**HSG**		**HY-CO-SY**	
	No	%	No	%
patent tubes	18	90.0	18	90.0
blocked tubes	1	5.0	2*	10.0
no significant spill	1	5.0	-	-

As shown in table (3), in cases of **HY-CO-SY**, 18 cases of right sided patency (90%) and 2 cases of right sided block (10%), *one of them showed false + ve result due to utero-tubal spasm. In **HSG** showed, 18 cases with right sided patency (90%), one case with right sided block (5%) and one case with no significant spill (5%).

In the right tube:

Sensitivity 50%

Specificity 94.4%

Positive predictive value 50%

Negative predicative value 94.4%

Accuracy 90%

$X^2 = 9.47$ $P < 0.05$

Table (4) : Shows comparison between **HY-CO-SY** and **HSG** in term of uterine abnormalities.

Uterus	**HSG**		**HY-CO-SY**	
	No	%	No	%
casses with normal uterus	18	90.0	17	85.0
cases with abnormal uterus	2**	10.0	3*	15.0

As shown in table (4), **HY-CO-SY**, showed 17 cases of normal uterus 85% and 3* cases of abnormal uterus, 2* of them were small sized uterus and one* of them showed filling defect of the uterus, while in **HSG** there was 18 cases with normal uterus (90%) and 2** cases showed small sized uterus (10%).

In the uterus:

Sensitivity 100%

Specificity 94.4%

Positive predictive value 66.7%

Negative predictive value 100%

Accuracy 95%

$X^2 = 12.59$ $P < 0.001$

In the course of **HY-CO-SY**, no serious adverse effects as bradycardia, fainting, nausia, sweeting, hyperventilation and severe pain were observed during or after the procedure, while five cases (25%) had complained from tolerable pain which lasted for about 15-30 minutes and relieved without medication.

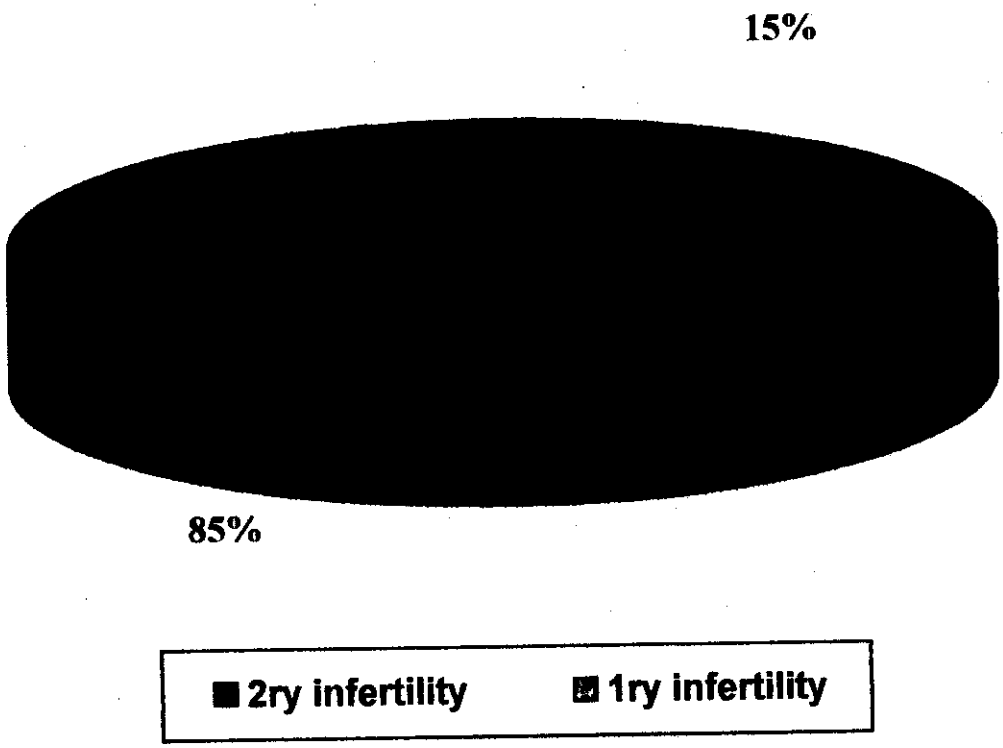

Fig. (2) : Types of infertility

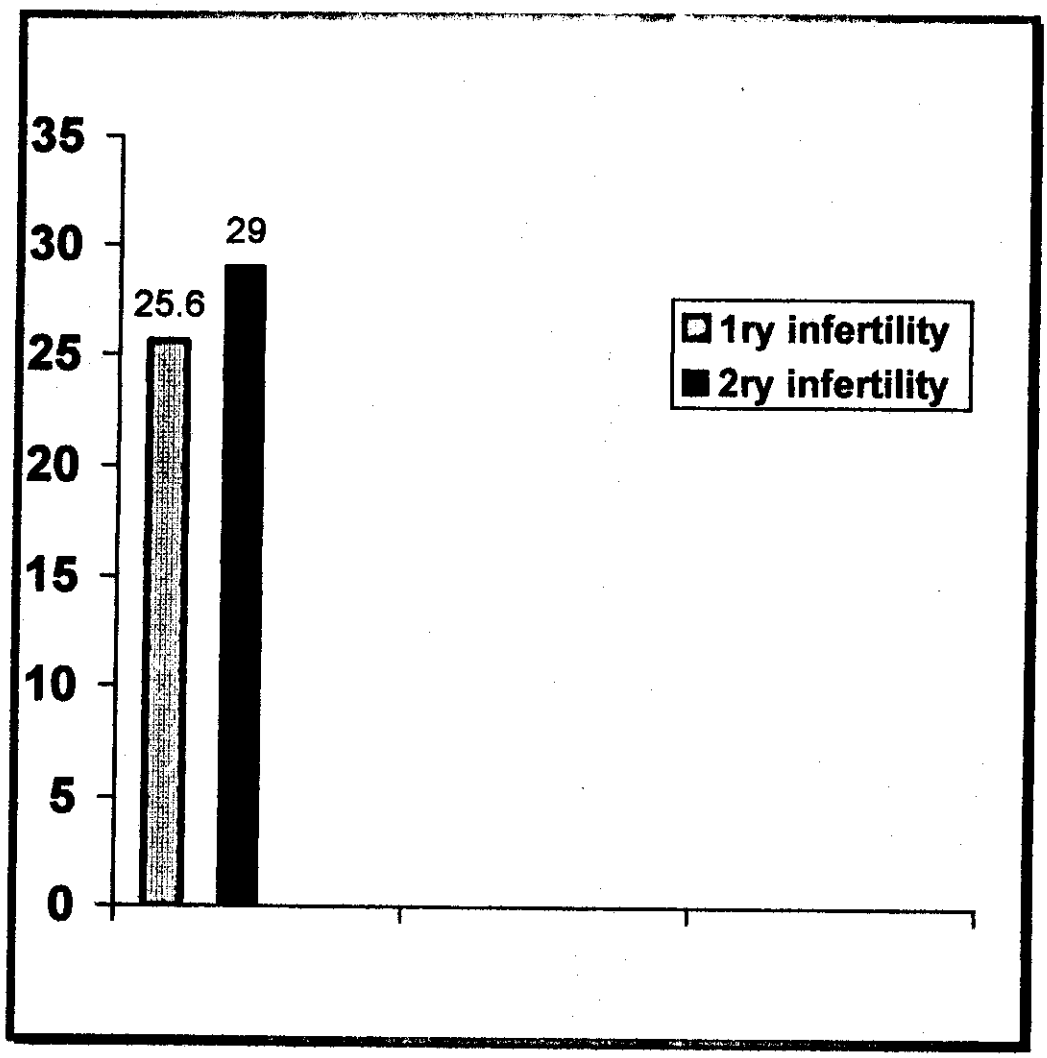

Fig. (3): Mean age distribution for types of infertility

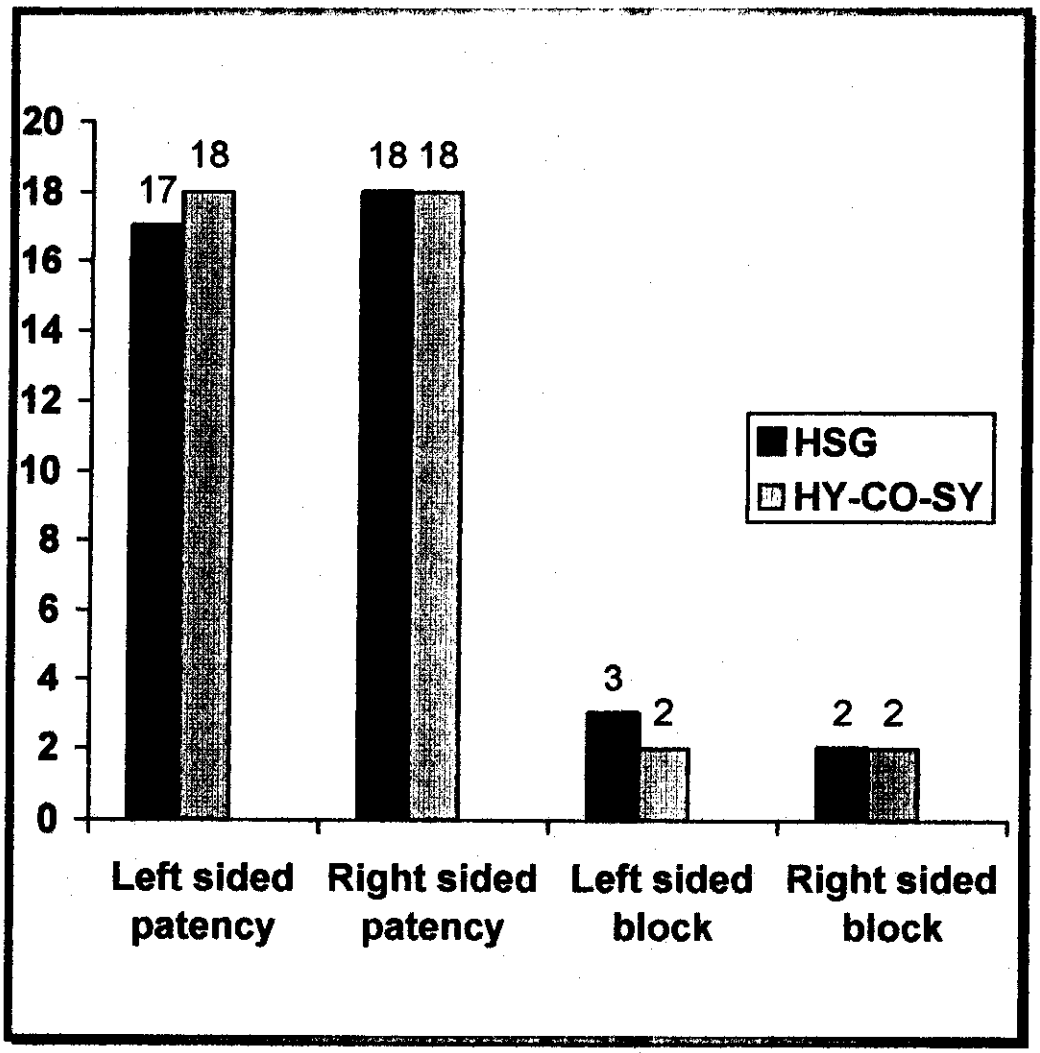

Fig. (4): Comparison of HY-CO-SY with HSG in term of tubal patency.

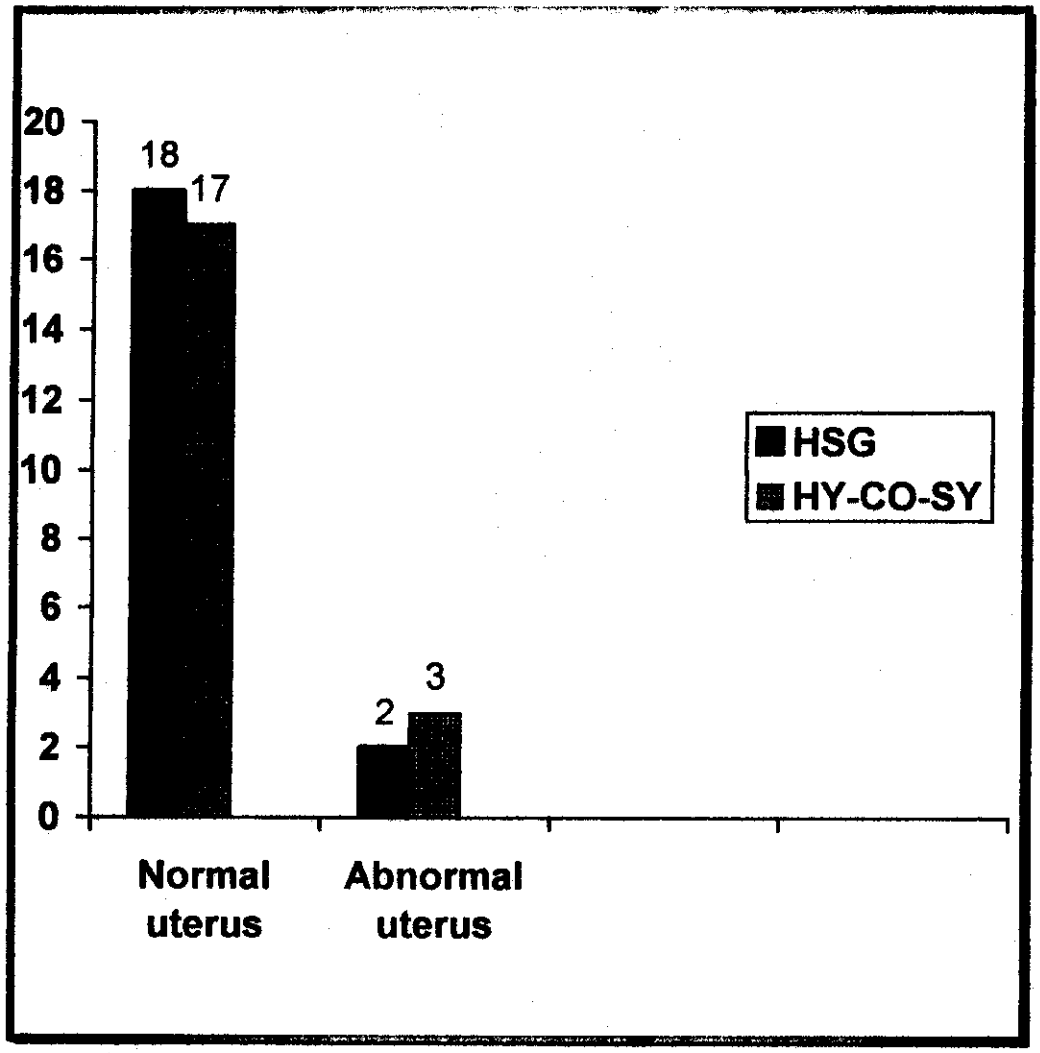

Fig. (5): Comparison of HY-CO-SY with HSG in term of uterine abnormalities.

Fig (6) : hysterosalpingogram shows average sized uterus with normal shape, patent both fallopian tubes with good peritoneal spill.

Fig (7) : Longitudinal ultrasonographic scanning of the same patient {P. 65} before Echovist-200 injection shows the catheter inside the uterine cavity.

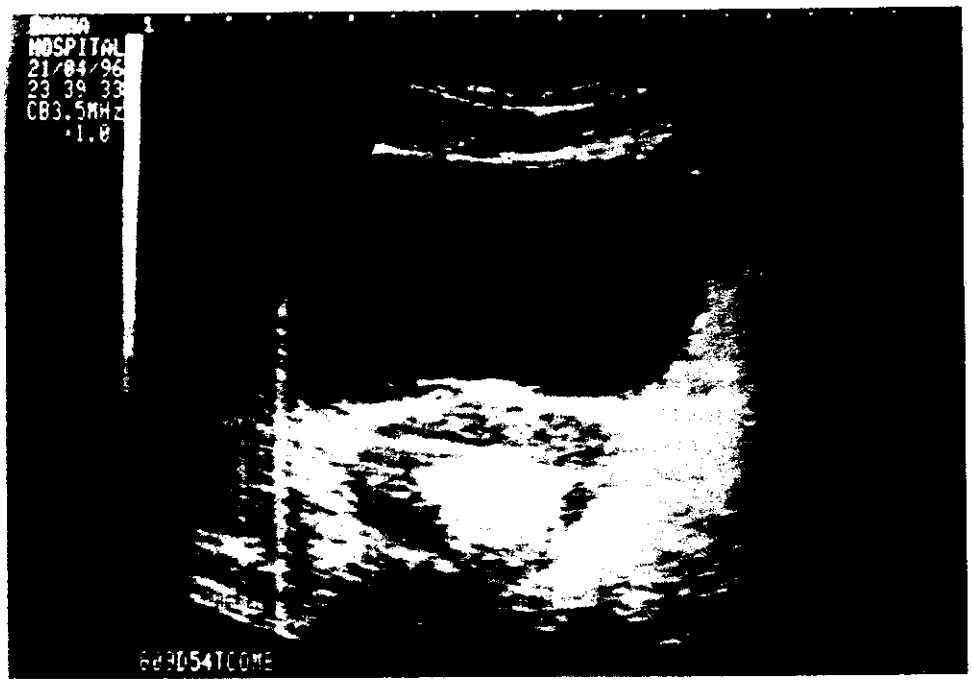

Fig (8) : hysterosalpingo-contrast-sonography of the same patient {P. 65}shows normal filling of the uterus, patent both fallopian tubes with good peritoneal spill.

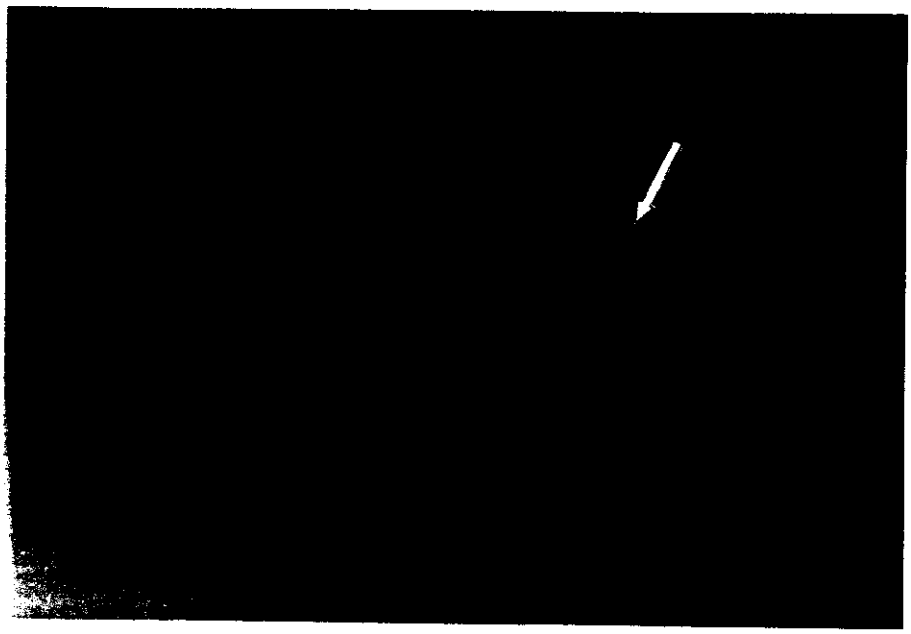

Fig (9) : HSG shows good uterine cavity filling, good filling of the right tube down towards its lateral end, and filling defect in the left tube.

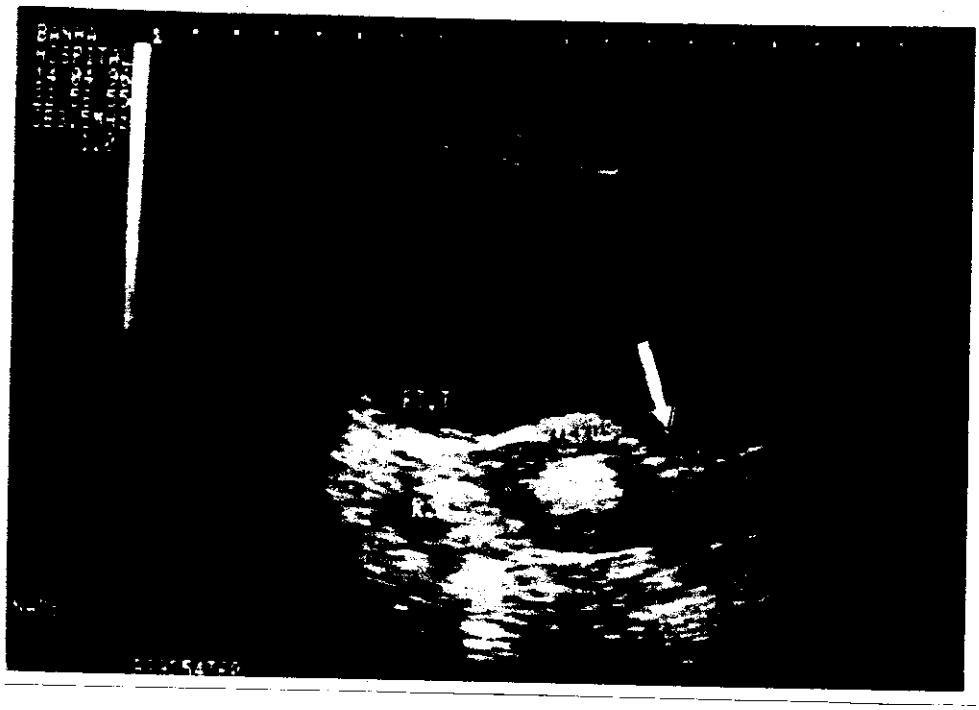

Fig (10) : HY-CO-SY of the same patient {P. 68}shows filling of the uterine cavity and right tube with peritoneal spill and filling defect in the left tube.

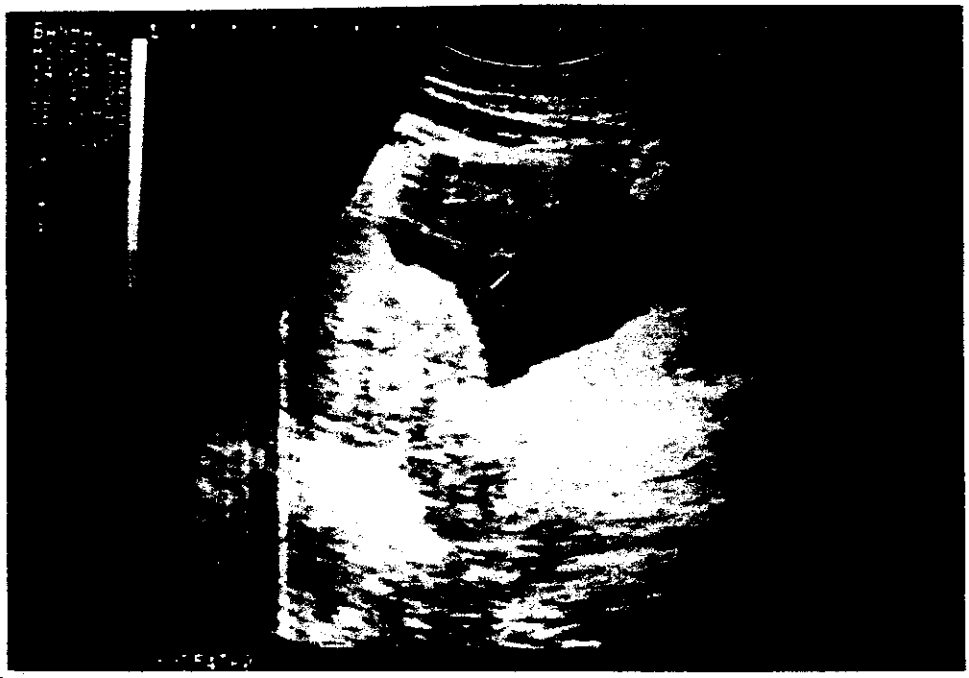

Fig (11) : Longitudinal scanning of hysterosalpingo-contrast-sonography of the same patient {P. 68}

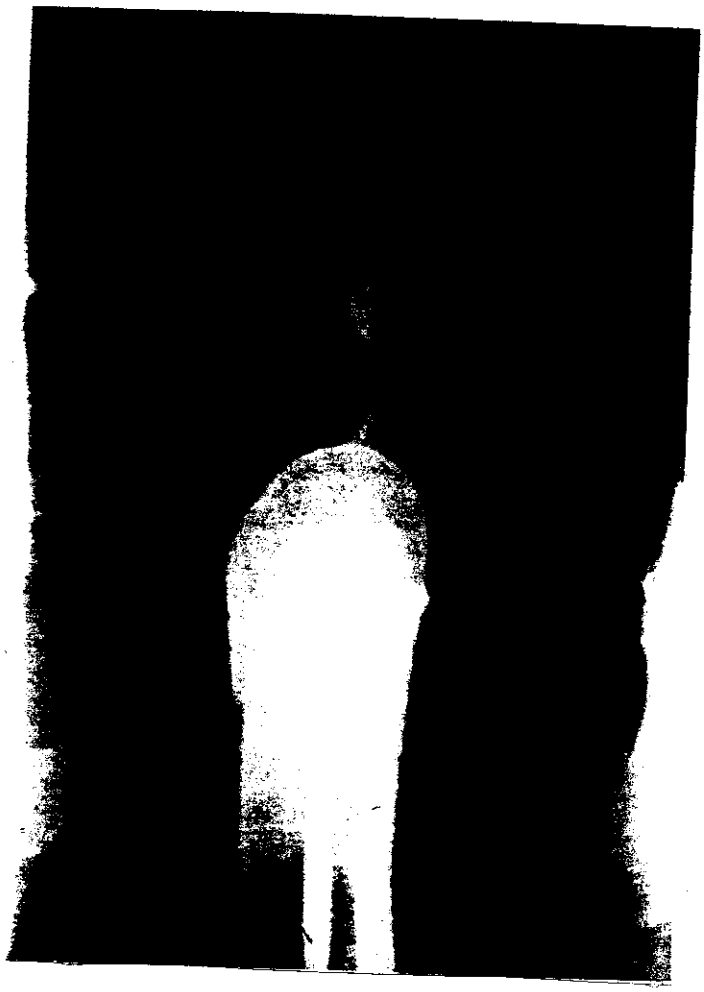

Fig (12) : HSG shows normal filling uterus with good filling of both tubes till their ends.

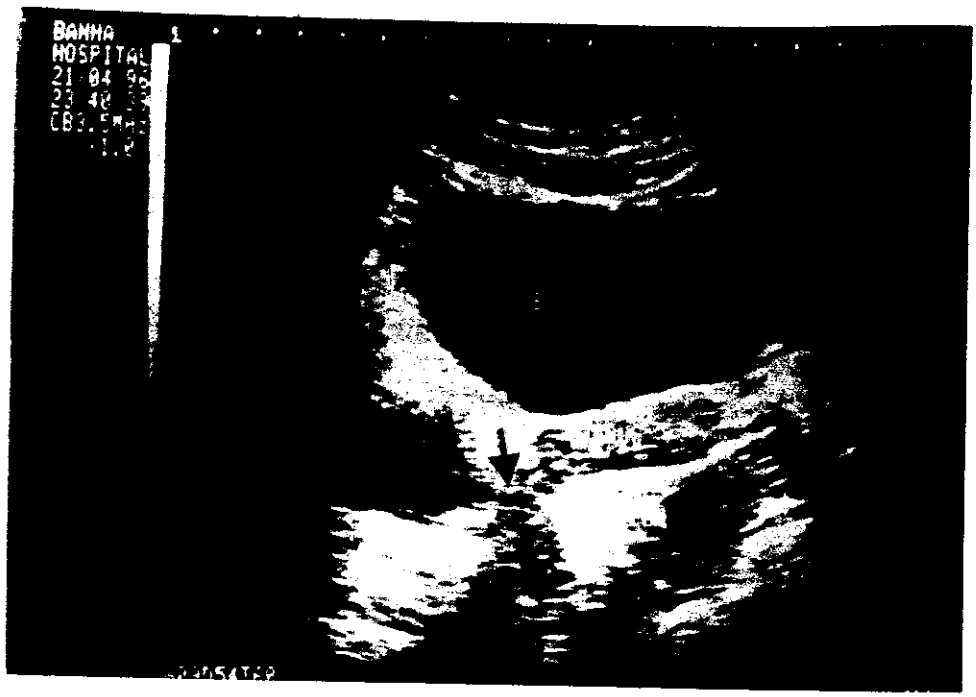

Fig (13) : HY-CO-SY of the same patient {P. 71} shows normal filling uterus, the left tube shows good filling and spill while the right tube shows uterotubal spasm.

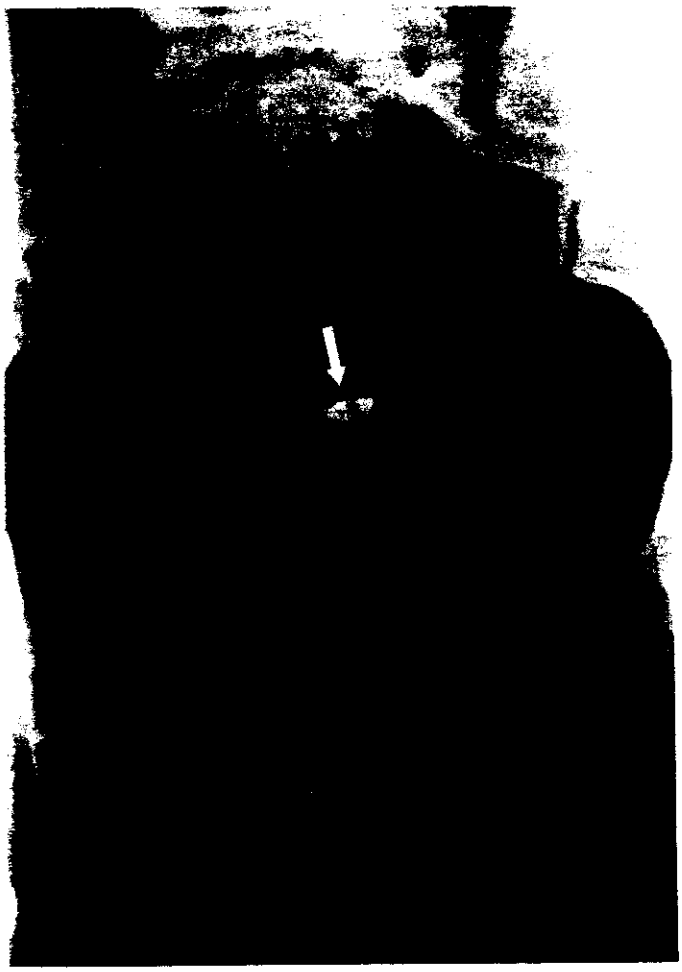

Fig (14) : HSG shows small sized uterus with good filling, both tubes are visualized till lateral ends.

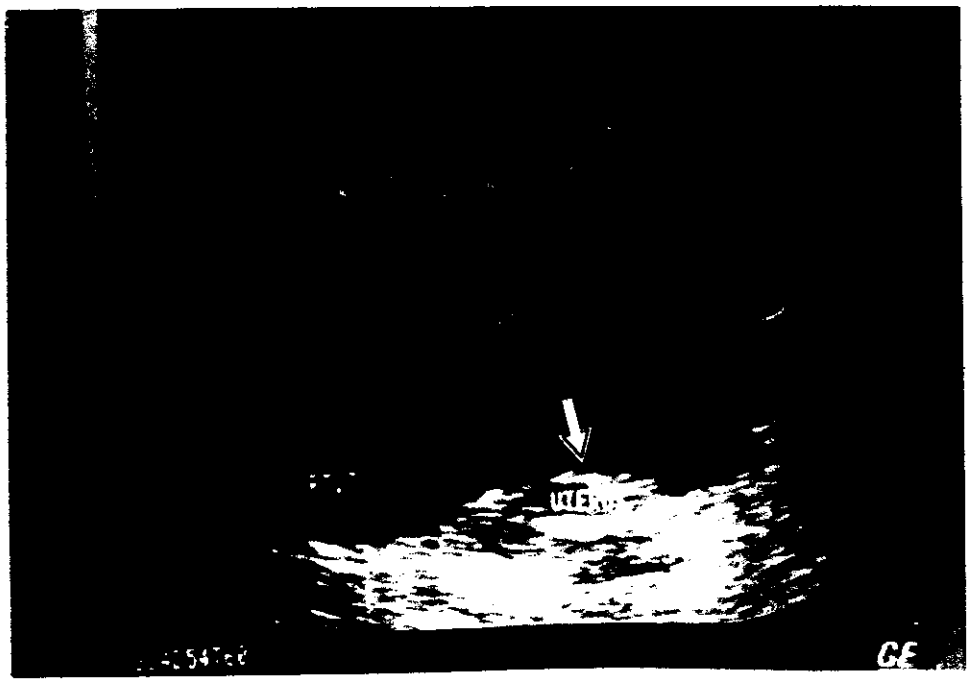

Fig (15) : HY-CO-SY of the same patient {P. 73} shows small sized uterus with both patent tubes and peritoneal spill.

Fig (17) : HY-CO-SY of the same patient {P. 75} shows incomplete filling of the uterine cavity with filling defect of both tubes.