

# How safe is late amniocentesis preformed after 24 weeks of gestation?

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## Introduction

Data regarding the utility and complications of amniocentesis (AC) preformed after 24 weeks is scarce. We report our experience with late AC.

## Methods

A retrospective analysis of a cohort of singleton pregnancies in which AC was preformed after 24 weeks during a 10 Year period in Meir medical center and in Carmel medical center was conducted. Data regarding the indication for AC, the genetic work-up preformed and the pregnancy outcome were retrieved from patient charts and telephone based questioners.

## Results

182 pregnancies were included in our cohort. The mean gestational age (GA) at the time of AC was 31.8±2.7 weeks (range: 24 -37+1 weeks). 109 AC procedures were preformed at a GA of less than 32 weeks; and 27 at a GA under 30 weeks. The mean GA at delivery was 38.2±2.4 weeks.

	Total N=182	GA>32 weeks N=73	GA≤32 weeks N=109	P value	GA≤30 weeks N=27	GA>30 weeks N=155	P value
Mean maternal age (SD)	31.5 (5.6)	32.1 (6)	31.2 (5.2)	0.25	29 (5)	32 (5.5)	0.013*
Mean GA at AC (SD)	31.8 (2.7)	34 (1.4)	30.3 (2.2)		26.9 (1.9)	32.6 (1.7)	
Mean GA at delivery (SD)	38.2 (2.4)	37.8 (2.3)	38.4 (2.4)	0.15	37.6 (3.4)	38.3 (1)	0.23
CS rate (%)	56 (33)	15 (23.8)	16 (16)	0.64	6 (25)	25 (18)	0.57
SPTD	8 (4.4)	2 (2.7)	6 (5.5)	0.5	3 (11)	10 (6.4)	0.4
Abruption	1 (0.8)	1 (1.6)	0	0.5	0	1 (0.9)	1
PPROM	6 (3.4)	2 (2.8)	4 (3.8)	1	2 (7.7)	4 (2.7)	0.2
Total Complication (%)	13 (7)	5 (6.8)	8 (7.3)	1	3 (11)	10 (6.45)	0.62
Latency from AC to delivery ≤1week (%)	16 (9)	14 (19.7)	2 (1.8)	0*	1 (3.7)	15 (9.9)	0.5

Case number	Genetic Result	GA at AC	Indication for AC	GA at Delivery
36	Down syndrome	30.9	heart malformation Maternal age.	TOP
44	Down syndrome	32.7	double bubble	TOP
47	Klinefelter syndrome	31	TT	37
49	47XYY	34.3	Bilateral Club foot	40
60	Achondroplasia	35	Short long bones	TOP
172	Hypochondroplasia	37	Short long bones, heart malformation	38

GA – gestational age. AC - amniocentesis .

The indication for AC included abnormal ultrasound findings in 68% of the cases, and advanced maternal age in 7% of the cases. The overall complication rate was 7% (n=13). In 1.6% (n=3) complications occurred within a week after AC, and in 4.3% (n=8) complications occurred within 30 days after AC. When comparing between the outcomes of AC preformed before and after 32 weeks no differences were found in the rate of PTL, in the overall complication rate, and the average GA at birth. There was also no difference in the outcome of AC preformed before and after 30 weeks. In 6 cases (3.29%) genetic work-up was abnormal; Three women decided to terminate their pregnancy. One pregnancy, in which the indication for AC was hydrops, ended in intrauterine fetal death .

## Conclusion

The complication rate of Late AC is 4.3% which is significantly higher than that of second trimester amniocentesis. The complication rate is not different for AC preformed after 32 weeks, before 32 weeks, or before 30 weeks.