

# Hydatidiform mole at extreme ages of reproductive life in a developing country from 1932 to 2000

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## Summary

*Purpose of investigation:* To determine the rates of hydatidiform mole (HM) cases at extreme reproductive life in a developing country.

*Methods:* A descriptive study was performed to assess the number of pregnancies and deliveries in Turkey, from 1932 to 2000, based on nationally or internationally published data from different university and state maternity hospitals.

*Results:* A spectrum of prevalence rates in different hospitals were depicted. Almost all of represented data were hospital-based. Percentages of all HM cases < 19 years old and > 40 years old compared to the total number of HMs in each study were not mentioned. In addition, the number of HM compared to total number of deliveries and pregnancies in those age groups were not provided in those studies.

*Conclusion:* There appears to be a need for further descriptive studies on a national basis, in regard to assess total number of HM cases per total pregnancies and deliveries for those age groups.

*Key words:* Hydatidiform mole; Age at extreme reproductive life; Prevalence.

## Introduction

For many years, it has been consistently demonstrated that advanced or younger maternal age constitutes a risk factor for hydatidiform mole (HM) occurrence. In fact, higher risk estimates have been reported, especially when both mother and father are older (45 years or more) [1].

In addition to these epidemiologic data, it has been shown that ova from older or even younger women are susceptible for abnormal fertilisation leading to an increased HM risk [2]. Therefore, women at extreme ages of the reproductive period (15 years or younger and 40 years or older) compose a subset of the population at higher risk for disease persistence that will require close follow-up and prophylactic chemotherapy [3, 4].

## Materials and Methods

In this brief series, we attempted to point out the national status of studies in Turkey which are relevant in terms of maternal age distribution. Age distribution of HM cases in Turkey from 1932 to 2000 were summarized and cases with malignant transformation have been shown, based on hospital-derived data. The same authors, in a previous report, documented the HM rates for deliveries and pregnancies of these various studies as shown in Table 1 [5].

## Results

From 1932 to 2000, HM cases were assessed in terms of maternal age distribution and subsequent malignant transformation. No relevant data were retrieved from

these studies in regard to paternal age. The total number of HM cases below 19 and above 40 years were 408 (13.5%) and 363 (12.0%), respectively. Only one study, via a cohort analysis over a 17-year period, has shown that in both extremes of age (< 19 years or (40 years), gestational trophoblastic neoplasia transformation rates were 2/1000 and 0.6/1,000, respectively. In terms of complete or partial HM, contrary to complete HM, partial HM appears to be associated with women's reproductive history rather than maternal age [6]. No noticeable statistical data regarding this point was retrieved.

## Conclusion

In a remarkably small number of studies, malignant transformation rates were reported which impeached the authors to compare the malignant transformation rates of two extreme age periods between the different studies reported in Table 1. No relevant information was retrieved on the percentage of all HM cases < 19 years old and (40 years old compared to the total number of HMs in each study. In addition, the number of HMs compared to the total number of deliveries and pregnancies in those age groups were not provided in those studies. These limitations seem to necessitate future studies about this issue. However, data of a developing county has been honestly demonstrated on the basis of nationally or internationally published studies.

As a conclusion, more studies are needed to precisely document national data and to elaborate more efficiently on various prognosticators to define high-risk groups for further follow-ups and management.

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Table 1. — Maternal age distribution and malignant transformation of HM cases in different studies during a 68-year period (1932-2000) in Turkey (parentheses are percentages).

Author*	Years	HM cases	Malignant transformation
Aban M. <i>et al.</i> [7]	1993-1998	98	-
< 19 age		12 (12.2)	
> 40 age		13 (13.2)	
Altintas A. <i>et al.</i> [8]	1986-1990	39	-
< 19 age		4 (10.2)	
> 40 age		9 (18.0)	
Atasu <i>et al.</i> [9]	1956-1975	701	-
< 19 age		98 (14.0)	7 (7.1)
> 40 age		53 (7.6)	2 (3.8)
Bayirli E. <i>et al.</i> [10]	1971-1982	232	-
< 19 age		13 (5.6)	
> 40 age		34 (14.7)	
Buyukoren A. <i>et al.</i> [11]	1972-1991	199	-
< 19 age		32 (16.1)	
> 40 age		13 (9.0)	
Çelik C. <i>et al.</i> [12]	1998-2000	25	-
< 19 age		6 (24.0)	
> 40 age		13 (8.0)	
Emnioglu M. <i>et al.</i> [13]	1979-1983	190	-
< 19 age		6 (24.0)	
> 40 age		13 (8.0)	
Erdemir R. <i>et al.</i> [14]	?	60	-
< 19 age		8 (13.3)	
> 40 age		13 (1.7)	
Erman O. <i>et al.</i> [15]	1979-1983	200	-
< 19 age		20 (10)	
> 40 age		40 (20)	
Gul A. <i>et al.</i> [16]	1995-1998	11	-
< 19 age		3 (27.2)	
> 40 age		13 (9.1)	
Gul T. <i>et al.</i> [17]	1985-1992	72	-
< 19 age		18 (25.0)	
> 40 age		12 (16.7)	
Günhan C. <i>et al.</i> [18]	1970-1979	79	-
< 19 age		25 (31.6)	
> 40 age		13 (6.3)	
Hassa H. <i>et al.</i> [19]	1979-1988	16	-
< 19 age		0 (0)	
> 40 age		1 (6.3)	
Inanc F. <i>et al.</i> [20]	1943-1969	176	-
< 19 age		20 (11.4)	
> 40 age		11 (6.2)	
Ilhan R. <i>et al.</i> [21]	1934-1982	455	-
< 19 age		81 (17.8)	
> 40 age		55 (12.1)	
Oruc N. <i>et al.</i> [22]	1979-1981	204	-
< 19 age		30 (14.7)	
> 40 age		30 (14.7)	
Ozalp S. <i>et al.</i> [23]	1979-199	759	-
< 19 age		7 (11.9)	
> 40 age		7 (11.9)	
Tukel S. <i>et al.</i> [24]	1973-1982	160	-
< 19 age		17 (10.6)	
> 40 age		16 (10.0)	
Yavuz H. <i>et al.</i> [25]	1981-1987	39	-
< 19 age		8 (20.5)	
> 40 age		4 (10.2)	

\* Most of the studies were published in Turkish and translated into English in the reference section.

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