Retrospective Analysis of the 126 Cases Terminated in Pregnancy by the Ethical Committee Decision

Nurten Akdeniz, Ahmet Kale, Mahmut Erdemoğlu, Ahmet Yalınkaya, Murat Yayla

Department of Gynecology and Obstetrics, Faculty of Medicine, Dicle University, Diyarbakır

Abstract

Objective: To evaluate ethical committee decisions on pregnancy terminations, according to indications and gestational ages.

Methods: Terminated 126 fetuses among 131 pregnancies admitted for consultations to the ethical committee during four years were evaluated retrospectively for clinical findings, indications and gestational age. Gestational weeks were grouped as 5-10 weeks, 11-24, 25-28 and over 28 weeks respectively. ANOVA and Chi square tests are used in statistical analyses.

Results: Termination request was rejected in 6.87% of the cases, while four of them were twins. Four single twins after selective fetocide and 122 singleton fetuses were terminated. Mean gestational age was 19.09±7.05 weeks in terminated cases. Eighty-four pregnacies were terminated because of the fetal causes (66%), and 42 of them of the maternal causes (33%). The most frequent fetal causes were anomalies of the central nervous system (41%) and fetal chromosomopathies (14%) respectively. Pregnancy termination due to fetal causes was performed especially between 11-24th weeks of pregnancy ($p<0.001$). Maternal diseases (61%) and teratogenic medicamentation (33%) were the most common maternal causes and termination of pregnancy due to these causes was performed especially between the 5-24th gestational weeks.

Conclusions: Termination of pregnancy or fetus is performed at a mean gestational age of 19 weeks, and especially according to fetal causes in this series. The termination request was rejected in 7% of the cases. Selective fetocide was the preferred method in cases of anomalous twin pair. Terminations due to maternal causes were done before the period of fetal viability, while terminations due to fetal causes were ranged mostly in the second trimester.

Keywords: Termination of pregnancy, ethics committee.

Etik kurul kararıyla gebelikte tahliye edilen 126 olgunun geriye yönelik değerlendirmesi

Amaç: Tıbbi tahliye etik kurul kararlarının, endikasyonlara ve işlemin yapıldığı gebelik haftasına göre değerlendirilmesi.

Yöntem: Dört yıllık süre içinde hekimlerince gebelik tahliyesi etik kuruluna yönlendirilen 131 hasta içinden, gebeliği veya fetusu sonlandırılan 126'sı, klinik bulgular, uygulama endikasyonları ve gebelik haftası yönlerinden etik kurul kayıtları temel alınarak retrospektif olarak değerlendirildi. Gebelik haftaları 5-10, 11-24, 25-28 ve 28 üzeri olarak gruplandırıldı. İstatistiklerde ANOVA ve Ki-kare testleri kullanıldı.

Bulgular: Kurula yönlendirilen olguların %6.87'sinde gebelik sonlandırması isteği uygun görülmemiş, bunların ikiz olan dördünde selektif fetosid ile gebeliğin devamı sağlanmıştı. Sonlandırılan diğer 122 olgu tek gebelikti. Olgular ortalama 19.09±7.05 haftada sonlandırılmıştı. Olguların %66'sında (n:84) tahliye endikasyonu fetal, %33'ünde (n:42) ise maternal nedenlerden kaynaklanmaktaydı. Fetal nedenler içinde merkezi sinir sistemi (%41) ve kromozom anomalileri (%14) önde gelirken, tahliyeler en sık 11-24. gebelik hafta aralığında uygulanmıştı ($p<0.001$). Anneye ait nedenler içinde anne hastalıkları (%61) ve teratojen ilaç kullanımı (%33) önde gelirken tahliyeler en sık 5-24. gebelik haftaları arasında uygulanmıştı.

Sonuç: Kliniğimizde gebelik veya fetus sonlandırmaları daha çok fetal nedenler ile, ortalama olarak gebeliğin 19. haftasında yapılmıştır. Sonlandırma taleplerinin yaklaşık %7'si uygun görülmemiştir. İkizlerden birinde anomali saptanan olgularda gebelik sonlandırması yapılmamış, fetosid tercih edilmiştir. Anneye ait nedenler ile sonlandırma işleminin fetal yaşam sınırından önceki dönemde, fetusa ait nedenlerin ise genelde ikinci trimesterde yapıldığı gözlenmiştir.

Anahtar Sözcükler: Gebelik tahliyesi, etik.

Correspondence: Nurten Akdeniz
Dicle Üniversitesi Tıp Fakültesi Kadın Hastalıkları ve Doğum Anabilim Dalı, Diyarbakır

Introduction

Termination of pregnancy is a complex topic with a wide spectrum of arguments and various conceptions and beliefs. Even the laws regulating the termination of pregnancy are varied from country to country.[1] In our country, a normal pregnancy can be legally terminated until the completion of the gestational week 10 by the consent of both parents. In case the gestational week is over 10 weeks and there is a maternal threat or a possibility of severe disability for the infant to be born and the next generations, then current pregnancy can be terminated provided that a justified report based on objective findings by an obstetrician and an expert from the related field is provided.[2] Legistation on this subject is included in the "Regulations for the Execution and Supervision of the Termination of Pregnancy and Sterilization Services" dated 1983.[3]

Among medical researchs carried out in our country, practices in the centers implementing termination of pregnancy and characteristics of the cases are randomly reported, and when the daily practices are taken into consideration, there seems to be an overall lack of restriction about the termination of pregnancy.[4] It has been emphasized that a new legal regulation is required in order to remove the differences in the approach between the physicians and institutions.[1]

Our objective was to retrospectively evaluate the decision mechanisms, indications and gestational weeks of medical interference for the termination procedures of pregnancy carried out in our clinic.

Methods

131 cases who presented to the polyclinic, demanding or proposing termination of the pregnancy between May 2000 and August 2004, and who were accordingly consulted to the Ethical Committee of the Obstetrics Department were retrospectively evaluated. Ethical Committee consisted of an expert of the field related with the finding or disease underlying the indication (pediatrics, pediatric surgery, brain surgery, etc.) as well as two obstetricians. Demographic characteristics, gestational weeks, indications, justifications for rejection and interventions of the pregnancies evaluated by the Committee have been reviewed from the records of the Ethical Committee. Based on the gestational week the pregnancy was terminated, cases were divided into four groups: Group I, gestational weeks 5-10; Group II, gestational weeks 11-24; Group III; gestational weeks 24-28; and, Group IV, gestational week 29 and over. Data were statistically compared by using ANOVA and Chi-square test, and value of $p<0.05$ was considered statistically significant.

Results

Of 131 cases who were consulted to the Ethical Committee of the clinic between May 2000 and August 2004 for termination, 122 were approved and pregnancy was terminated (93.13%) while request in five cases was rejected (3.82%), and in four cases who were twins, the pregnancy was not terminated, but maintained through selective fetocide (3.05%).

Reasons for rejections were as follows: viability of pregnancy (n:2); maternal disease not requiring termination of pregnancy (n:1); and low possibility of endangering the fetus by factors incurred during pregnancy (n:2) (Table 1). Of all pregnancies, 126 was terminated after receiving the written consent of all parents. Termination of pregnancy was carried out by vaginal misoprostol, dilatation and curettage in pregnancies earlier than the week 10. After the week 10, vaginal misoprostol was used, and when required, aspiration-evacuation-curettage were used. For terminations after the week 24, oxytoxin infusion based on the Bishop score, cervical Foley catheter or vaginal misoprostol were used, followed by oxytoxin induction.

It was observed that in all cases, maternal and/or fetal causes had been detected before the termination of the pregnancy, and in cases the pregnancy was maintained, couples had been acknowledged about the potential maternal and/or fetals risks. The mean age was 29.24±7.26 years; gravida 4.22±2.61; parity 2.53±2.26; abortus 0.66±1.16; and live birth 1.81±2.00. The epidemiological data of the groups is shown at Table 2. There was no statistically significant difference between the groups in terms of maternal age, pregnancy, labor, abortus and live infants. Vaginal

Table 1. Features of pregnancies rejected by the Ethical Committee.

	Age	Gestation	Parity	Gestational week	Reason for termination request
1	37	12	7	32	Cystic hygroma
2	37	2	-	28	47, XXX
3	27	1	-	25	Preeclampsy
4	39	5	3	13	Use of Azatiopurine+Prednizolone
5	19	1	-	11	History of urolythiasis + fluoroscopy
6	21	1	-	17	Twins + 45 XO
7	25	2	1	17	Twins+ Anencephaly
6	28	5	3	19	Twins+ Encephalocele
9	30	4	2	24	Twins+ Agenesis of corpus callosum

Table 2. Epidemiological data of the terminated groups.

	5-10 GW	11-24 GW	25-28 GW	> 28 GW	Total	P
Number of case	18 (%14.28)	78 (%61.90)	20 (%15.87)	10 (%7.93)	126	-
Pregnancy	4.27±2.39	4.26 ± 2.61	3.52 ± 2.29	5.20 ± 3.48	4.22 ± 2.61	0.43
Labor	2.38±2.14	2.49 ± 2.25	2.31 ± 2.31	3.50 ± 2.63	2.53 ± 2.26	0.56
Abortus	0.72±1.27	0.84 ± 1.26	0.15 ± 0.50	0.20 ± 0.63	0.66 ± 1.16	0.07
Live birth	2.22±1.86	1.81 ± 2.11	1.73 ± 2.07	1.20 ± 1.22	1.81 ± 2.00	0.64
Mean age	31.72 ± 7.82	28.96 ± 7.64	28.31 ± 6.19	28.70 ± 4.66	29.24 ± 7.26	0.46

GW: Gestational week

method was chosen, and termination was successful in all cases. The mean gestational week was 19.09±7.05 in terminated cases. The rate of terminations after the week 10 was 14.28% while it was 85.72% for the ones after the week 10. The decision for termination was given after the week 24 in 23.8% of the cases.

Eighty-four cases were terminated because of fetal anomalies (66.66%) in the series reviewed, where the most frequent causes were central nervous system (n:35, 41.66%) and chromosome anomalies (n:12, 14.29%) (Table 3) ($p<0.001$). Central nervous system anomalies included hydrocephaly (n:11; Down syndrome in three), ventricu-

Table 3. Fetal causes and gestational weeks (GW) in terminated cases.

	5-10 GW	11-24 GW	25-28 GW	> 28 GW	Total
Central nervous system anomaly	-	23	9	3	35
Chromosome anomaly	-	11	1	-	12
Non immun hidrops fetalis	-	6	2	2	10
Cystic hygroma	-	3	1	1	5
Urinary system anomaly	-	2	1	1	4
Skeletal system anomaly	-	2	1	1	4
Cardiac anomaly	-	1	1	1	3
Anhidramniyos	-	2	-	-	2
Other	-	7	1	1	9
Total	-	57 (%67.86)	17 (%20.24)	10 (%11.90)	84 (%100)

Table 4. Maternal causes and gestational weeks (GW) in terminated cases.

	5-10 GW	11-24 GW	25-28 GW	> 28 GW	Total
Advanced heart disease, hypertension	7	8	1	-	16
Use of teratogen drugs	7	6	-	-	13
Chronic renal disease, dialysis	-	5	-	-	5
Siroz, kronik aktif hepatit	2	-	-	-	2
Other	2	3	1	-	6
Total	18 (%42.86)	22 (% 52.38)	2 (%4.76)	-	42 (%100)

lomegaly and spina bifida (n:9), anencephaly (n:9), encephalocele (n:5), microcephaly (n:2), intracranial mass (n:1), agenesis of corpus callosum (n:1). Chromosome anomalies consisted of trisomy 21 (n:8), trisomy 18 (n:2), trisomy 13 (n:1) and 45 XO (n:1). Other malformations included non-immun hydrops fetalis, large cystic hygromas, polycystic kidneys and agenesis of corpus callosum, lethal achondroplasias and cardiac anomalies concomittant with large septal defect or ventricul hypoplasia and multiple anomalies.

Pregnancy termination due to fetal causes was performed in 53 cases (63.09%) especially between the weeks 11 and 24. No pregnancy was terminated in the early period (weeks 5-10) due to fetal causes.

Forty-two of the terminated cases (33.33%) had maternal causes. Among them, the leading ones were maternal diseases (61.90%) and use of teratogen drugs (33.33%). Pregnancy termination due to maternal causes was most frequently performed between the weeks 11 and 24 (n:22, 52.38%) and the weeks 5 and 10 (n:18, 42.86%) (Table 4). One of the two cases who were terminated after the gestational week 24 had been diagnosed with severe pulmonary hypertension, and the other with severe preeclampsia. No termination was found during the last trimester of the pregnancies.

Tablo 5. Distribution of terminations due to maternal and fetal causes by gestational weeks.

Gestational week	Maternal cause	Fetal cause	Total
5-10	18 (%100)	-	18
11-24	22 (%27.85)	57 (%72.15)	79
25-28	2 (%10.53)	17 (%89.47)	19
> 28	-	10 (%100)	10
Total	42 (%33.33)	84 (%66.66)	126

Twenty-two of the cases who had been terminated between the gestational weeks 11 and 24 had maternal causes while 57 cases had fetal causes. Pregnancy termination weeks due to maternal and fetal causes were statistically different ($p<0.05$). Terminations due to maternal causes were performed in earlier weeks while the ones due to fetal causes in advanced weeks (Table 5).

Discussion

Termination of pregnancy is a difficult decision to make for both the parents and the physician. When a fetus is diagnosed with an anomaly/disease during the intrauterine period, community and parents may have a tendency to terminate the pregnancy, but such a tendency may violate some rights of the fetus because here the aim is to destroy the fetus and act accordingly. A decision which may seem right to the physician and the parents may be contradictory to the social beliefs, state's laws, universal law codes, even to the medical discipline. Therefore, it is necessary to form some committees for decision-making in order to prevent any arbitrary decisions. Such committees are usually called "Ethical Committe for Termination of Pregnancy". Comprimising at least three experts, this committee has to demand any document and finding, and present and file detailed approval forms. Several professional groups like law experts, sociologists, scientists, religious scientists can be involved in the decision making together with the physicians in the ethical committees in the western countries. 4 Such formations are effective in taking the ethical and right decisions in the termination of pregnancies.

In Turkey , pregnancies can be legally terminated until the end of the gestational week 10 upon request of both parents. 2 As the termina-

tions of pregnancy based on laws are carried out in safer conditions, maternal complications associated with abortus are reduced. It is well known that particularly deaths due to miscarriage are decreased following the related code enacted in our country in 1983.[2] Again, in our country decisions for termination of pregnancy are usually made by an obstetrician and parents since no multidisciplinary structure is available in general terms. It is a fact that the legistative clause "...an expert from the related field is provided" is not applied all the time. Furthermore, no limit for gestational week is enforced for the termination of pregnancy in the related legistation, and indications are described unnecessarily broad.[1]

Instead, each anomaly case and pregnancy termination should be gathered in a regional, then a national center accompanied with its justification and related documents so that rights of the fetus could be protected by means of execution of the law and related ethical codes.[1] In the near future, such legistations and regulations shall be rearranged according to the Compliance with the EC Regulations.

Limit of viability is 22-24 week's gestation for neonates. General approach adopts offering the choice of pregnancy termination to the parents in case of presence of a malformation conflicting with a healthy life in the fetus who has not achieved viability yet.[1] Physicians' interpretation about the termination of pregnancy in case of fetal anomaly may largely differ even before that period.[4] Although it hase been reported that termination of pregnancy is rarely accepted by the physicians in the presence of a fetal anomaly in some countries, the approach in our country may end up in a status against the fetus.[4]

In our clinic, the decision to terminate a pregnancy can only be made by the approval of at least two obstetricians, one physician from the related field, and parents. In the series we reviewed, the most frequent indications for termination of pregnancy were fetal anomalies in the central nervous system, followed by chromosome anomalies and hydrops fetalis respectively. In a study, it was reported that 20% of 657 terminated pregnancies due to fetal causes after the gestational week 14 was associated with cardiac anomalies.[5] The cardiac anomaly was present only in three (3.7%) of 80 terminated pregnancies due to fetal causes in our study. We believe that this is a result of the inefficiency in the early diagnosis of cardiac anomalies. In the same study, 46.1% of cases had central nervous system anomaly.[5] Similarly, we have found a rate of 41.6% for central nervous system anomalies.

Fetal causes were two-fold of maternal causes in the series we reviewed. 66.66% of the pregnancy terminations due to fetal causes were at gestational weeks 11-24 while 33.33% at a later period. In a study carried out in Australia, Dickinson et al. reported a rate of 13.2% for late termination of pregnancies (>24 weeks) due to fetal anomalies.[6] In France, the rate for late termination of pregnancy (>24 weeks) due to fetal causes was reported to be 37%.[7] Our results are slightly lower than the results reported for France. We believe that this is associated with the wide range enforced by the law in our country and higher limit of viability (>28 weeks) applied in our clinic.

In case a defect was detected in twin pregnancies, fetocide usually produces promising outcomes in non-monochorionics.[8] Proposing a selective fetocide to the parents seems to be a rational approach in early detected anomalies as well as admitting the autonomy of the parents and termination request. In the series we reviewed, four cases with twin pregnancy were not terminated, instead they underwent selective fetocide.

In our series, maternal causes for termination were found in the first two trimesters while no decision was made for termination during the last trimester. It indicates that some clinic practices were performed without any consultation to the Ethical Committee. Such practice which can be execused under emergency conditions to some extent may cause problems in case of loss of the premature fetus during the neonatal period or of advanced morbidity. Therefore, implementing each intervention based on duly decision-making in detail, and consulting to the Committee when necessary may not prevent emergence of medicolegal problems, but facilitate the resolution and prevent violation of the physicians' rights.

In conclusion, within the period reviewed it was found out that medical terminations carried out in our clinic were more frequently resulting from fetal causes, and maternal causes was responsible only for 33% of terminations. In all of the terminations, approval from at least two obstetrician,

one physician from the related field and parents was obtained; vaginal method was chosen and succeeded in all cases. None of the twin pregnancies with single anomaly was terminated, and selective fetocide was preferred. Pregnancies had been terminated at mean 19 week's gestation, and it was observed that because of the uncertainty in the law and legistation, decisions for termination could have been made for weeks 24-28.

Prenatal diagnosis should be completed before the gestational week 24 in order not to force the ethical limits for terminations. When a fetal cause is detected in pregnancies which exceed the limit of viability, the decision should be conservative if the conditions allow, however if maternal causes are severe, then the decision should be made in favor of the mother. Such decisions should be made by a committee formed, and records must be carefully kept. Hospitals and clinics which have no such committees yet must be immediately organized, and decide on terminations in that specific region. Obstetricians should not misinterpret the articles of the regulation, and should not make decisions on their own. Shared responsibility and exchange of ideas will secure a clear conscience as well as preventing wrong decisions. Futhermore, in addition to the presence of an experienced and objective member, involvement of an expert from each field including the obstetrician alternately in the ethical committee for pregnancy terminations to consult when necessary shall contribute to the communication, coherence and experience within the organization.

References

1. Şen C, Yayla M: Fetal Etik. Çocuk Hakları Toplantıları. İst Tabip Odası. Haziran 2000: 95-103.
2. Güler M. Hekimler ve Tabip Odası Yöneticileri İçin Mevzuat. Kanun No:2827, Madde 5, birinci ve ikinci fıkra., Türk Tabipler Birliği Merkez Konseyi. Ankara: 2001:107.
3. Rahim tahliyesi ve sterilizasyon hizmetlerinin yürütülmesi ve denetlenmesine ilişkin tüzük-1983. Sağlık Mevzuatı - Sağlık Personelini İlgilendiren Hukuk Kuralları. Hacettepe Yayın Birliği, Ankara 1984, s: 548-55.
4. Yayla M, Şen C: Doğmamış bebeğin tedavi hakkı ve fetal etik. Çocuk Forumu 2000; 3: 18-22.
5. Savulescu J. Is current practice around late termination of pregnancy eugenic and discriminatory? Maternal interests and abortion. J *Med Ethics.* 2001;27:165-71.
6. Dickinson JE. Late pregnancy termination within a legislated medical environment. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 2004;44:337-41..
7. Dommergues M, Benachi A, Benifla JL, des Noëttes R, Dumez Y. The reasons for termination of pregnancy in the third trimester. *Br J Obstet Gynaecol*, 1999; 106: 297-303.
8. Keith A. Eddleman KA, Stone JL, Lynch L, Berkowitz RL. Selective termination of anomalous fetuses in multifetal pregnancies: Two hundred cases at a single center. *Am J Obstet Gynecol* 2002;187:1168-72.