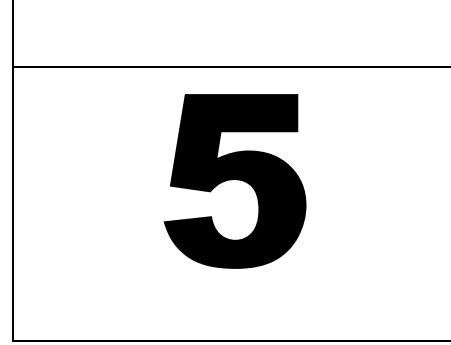




M. A. Akşit Koleksiyonundan



First Neonatology Intensive Care Unit in Eskişehir

Eskişehir'de ilk Yenidoğan Yoğun Bakım Ünitesi yapılanması

*M Arif AKŞİT****

** Neonatology Units admitted the infants, after birth, so reduced the problems, reduced the preterm birth.*

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If you established a new unit, the result about this fact be indicated the function, by mortality and morbidity condition.

First not as a referred one, as Neonatology Intensive Care Unit, as nearly 11,000 live births a year in Eskişehir, at 1982. There main function, hold the load, maternity hospital. So, an example for Neonatology concept, education and teaching, as lecturer on certification programs, on neonatal resuscitation and preterm care and serve.

As routinely noticed in a city, the cultural reaction accrued, not to accepted as refereed unit and not replace themselves. The point only intensive care and problem infants, as their mortality ratio, returns to nearly none, if send so, not any death preterm infant.

This fact, must care the pregnancy, and better to send as fetus, then newborn infant. So, Obstetrics and Gynecology mut be at close cooperation.

By forming an expert opinion council, by Perinatology, Neonatology, Genetics and Metabolic Diseases Departments, Ethics Department and Forensic Medicine, as combination, for all Monday noon be as routine meeting. For advice, even from outer center problems.

Outline

First Neonatology Intensive Care Unit in Eskişehir

AIM: If you established a new unit, the results must be in evaluation, for discussion and for further expectation. It is not for care of newborn infants in Eskişehir, aim for education, be an example and being a referred unit for critical life condition infants.

Grounding Aspects: These numbers confirm the 1982-1988 results, as the first establishing years, as Anadolu University regulation, now at Osmangazi University, before active in City Maternity Hospital

Introduction: If you move to a new place, like making migration, there is an accepting problem. "Why do you come, we can manage our patients", thus it is correct, we come to solve your problem, in order to referred newborns, that, you will send to us, not to Ankara, the critically near life patients especially preterm infant.

General Considerations: At Maternity Hospital the mortality mostly at preterm infants, thus if they referred, then the mortality ratio will drop. Exchange transfusion, not send to Ankara, directly at that center, thus, not required extra money, as governmental fact, not paid to the physicians too.

Proceeding: As noted in the Article, first rooms are heated over 32°C, humidity above 70%, like a Turkish Bath/Hamam, by external automatic electric radiators, and boiling water. After taken experienced technical equipment, the education and using of it by expert own team.

Notions: Maternity Hospital bought several incubators, thus, they closed all of them, because not satisfactory nurse for take care. This forced us more advanced and progress, day by day.

Conclusion: The small unit, by the graduated physicians knowing Neonatology, also be a fact for care and serve be leading this unit smaller preterm infants must be in care, below 1500grams. A kind of migration, does it perform their job, after such years passed? This is your assessment, after evaluate the results.

Key Words: The result and concept of the first Neonatal Intensive Care

Özet

Eskişehir'de ilk Yenidoğan Yoğun Bakım Ünitesi yapılanması

Amaç: Yeni bir Neonatoloji Yoğun Bakım Ünitesi kurmuş iseniz, elde edilen sonuçlar değerlendirilmelidir, acaba beklentileri karşılamaktadır diye sorgulanmalıdır. Eskişehir'de tüm yenidoğan bebekleri bakmak amacı olmadığı gibi, eğitim ve bakım amaçlı, kritik yaşam sınırında olan bebeklere bakım ve sevk edilen bir merkez değildir.

Dayanaklar/Kaynaklar: Buradaki rakamlar 1982-1988 yılları arasındaki ilk kuruluşa aittir. O dönemde Anadolu Üniversitesine bağlı olup, bugün Osmangazi Üniversitesi bünyesinde. 1982 öncesi Şehir Doğumevinde bakılmaya çalışılıyordu.

Giriş: Bir yeni yere yerleşiyorsanız, bir nevi göç ediyorsanız, kabul edilme sorunu yaşarsınız. Biz burada bebeklere bakıyoruz, niye geldiniz derler. Biz geldik, sizin sorunlu bebeklerinize bakmak için, Ankara'ya sevk etmek yerine bize gönderebilirsiniz, resmi olduğu için ayrıca ücret ödemeye gerek yok, hekimlere de para ödenmiyor dedik.

Genel Yaklaşım: Doğum Evinde bebek ölümünde nedeni prematürelilik önemli yer tuttuğu için, bu sayı düşecektir, Kan Değişim için Ankara'ya gönderme yerine, aynı şehirde olması, resmi kurum olması nedeni ile kabulü kolay olmuştur.

Yaklaşım: İlk planda yetersiz donanım olduğu için, odalar elektrikli otomatik radyatörlerle 32°C ısıtılmış, içerde kaynayan su ile de nem %70 ve üstü tutulmaya çalışılmıştır. Üstün teknik cihazlar gelmesi ile bunların eğitim yapılarak kullanılmış, uzman ekip oluşturulmuştur.

Notlar: Doğum Evi inkübatör almış ama hemşire desteği olmadığı için kullanamamıştır. Bu bizim gün ve gün daha ileri ve gelişmiş olmamıza bir güç sağlamıştır.

Sonuç: Ufak bir ünite olmasına karşın, mezun olan hekimlerin Neonatoloji kavramları oluşmuş, bize daha küçük bebeklere bakmak ve 1500gram altındakilere yaşam Hakkını sağlama azmini kazandırmıştır. Burada sonuçlar görüşlerinize sunulmaktadır.

Anahtar Kelimeler: Yenidoğan Yoğun Bakım Ünitesinin kavram boyutu ile sonuçları

Introduction

In this Article, the results of the Neonatal Intensive Care as taken on those days. Not all, some results are given as example for evaluation of the performance.

At those days, the Unit at the Anadolu University, and managing directly to the Rector Hospital, not Medical Faculty as in order.

Directly as a Unit, independent and be activity by their own attempt, not taken any permission from Medical Faculty.

Rotating Capital directly on the way of Unit. Taken the materials, and using controlled by the Unit.

The configuration of the Newborn Unit

The Newborn Unit, as before dining room, all walls are constructed newly ceramic, and the cleaning basin is also added.

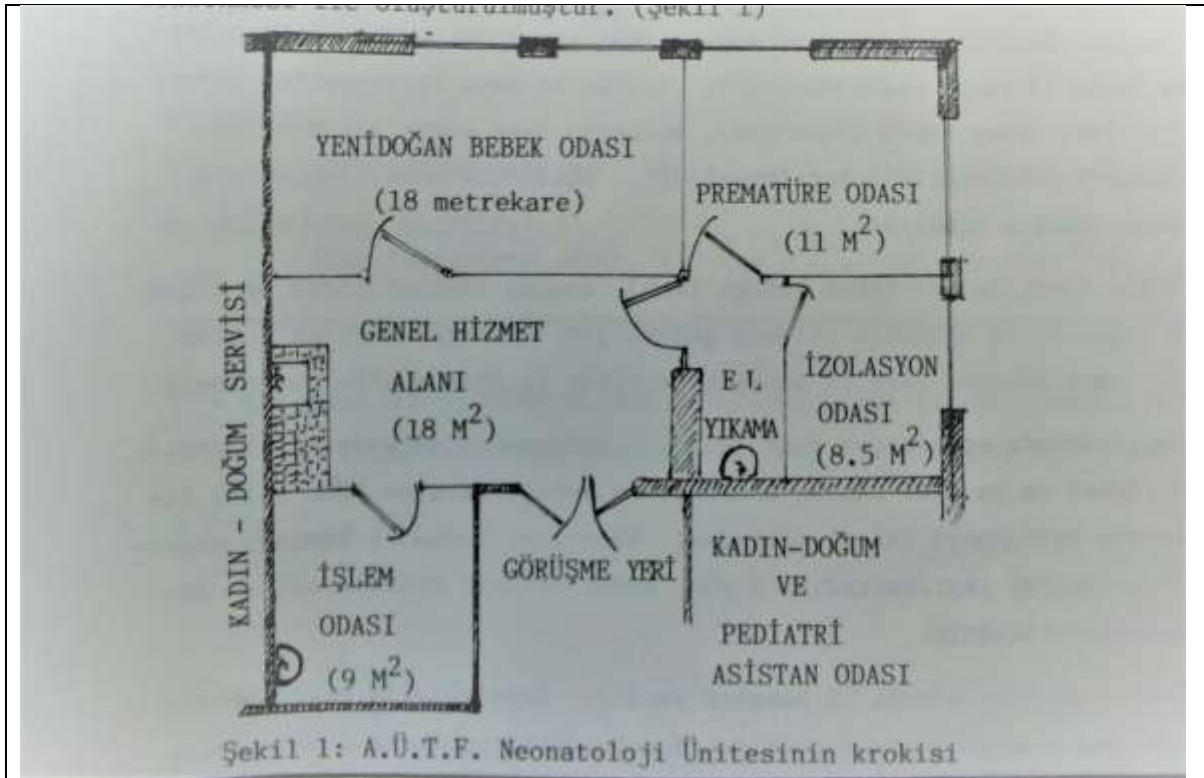


Figure 4/1: Each function has a special space; thus, the unit is near the delivery room.

Equipment Facility

The place is so small, so the equipment not as number thus, by special functions be noted.

By rooming facilities, the newborn infant bedding is so differing. There is a special place, closed, as heated according to the chart at gestational age and weight estimation.

So external heating by automatic electric radiator, at least 10 pieces, and boiling water for humidity confirmation, at least 70%, measured by special one.

This allows, only critical and continuously following newborns at this Unit.

A special Neonatology nurse, and even nurses, at the unit, by confirming the walls on glass, so noted the healthy condition of the infants.

As the beds and functions are indicated below.

The medical equipment in place of the Unit, as M² estimation

TABLO I: ANADOLU ÜNİVERSİTESİ NEONATOLOJİ ÜNİTESİNDE BULUNAN BEBEK YATAKLARININ BULUNAN VE MAKSİMUM KONULABİLECEK ADETLER*					
YATAKLAR (Tipi)	N E O N A T O L O J İ		DOĞUM		TOPLAM
	YENİDOĞAN SERVİSİ		SERVİSİ		
A) İNKÜBATORLER:					
1. Isıtma Küvözü: . . . . .	-	. . . . .	1	. . . . .	1
(Maksimum konulabilecek adet)	-	. . . . .	2	. . . . .	2
2. Hasta bakım küvözü:	3	. . . . .	-	. . . . .	3
(Mak. konulabilecek adet)	4	. . . . .	-	. . . . .	4
3. Yoğun Bakım küvözü: . . . . .	-	. . . . .	-	. . . . .	-
(Mak. konulabilecek adet)	3	. . . . .	-	. . . . .	3
4. Transport Küvözü: . . . . .	-	. . . . .	-	. . . . .	-
(Mak. konulabilecek adet)	1	. . . . .	-	. . . . .	1
TOPLAM Serviste olması gereken:	8	. . . . .	2	. . . . .	10
B) KOTLAR:					
(Mak. konulabilecek adet)	7	. . . . .	10	. . . . .	17
	10	. . . . .	15	. . . . .	25
C) YOGUN BAKIM ÜNİTESİ:					
(Mak. konulabilecek adet)	1	. . . . .	1	. . . . .	2

* Maksimum konulabilecek kot ve/veya küvöz sayısı, yenidoğan bebeklerin bakıldığı odanın metrekaare alanına göre hesaplanmıştır.

Figure 4/2: The capacity of the Neonatology facilities

At new standards, the distance between the incubators must be from 1,5-2meters away. As also same at this organization.

From 1983-1988 the Neonatology admitted cases

TABLO II: 1983-1988 YILLARINA GÖRE İZLENEN BEBEKLERİN DÖKÜMÜ							
YILLAR	N E O N A T O L O J İ Ü N İ T E S İ			POLİKLİNİK	TOPLAM		
	YENİDOĞAN SERVİSİ + DOĞUM SERVİSİ = TOPLAM						
1983	311	. . . . .	197	. . . . .	508	231	805
1984	367	. . . . .	378	. . . . .	745	488	1233
1985	525	. . . . .	446	. . . . .	971	512	1483
1986	554	. . . . .	573	. . . . .	1127	1673	2800
1987	556	. . . . .	535	. . . . .	1091	704	1785
1988	536	. . . . .	443	. . . . .	979	880	1859
T O P L A M	2849		2572		5421	4488	9965

Figure 4/3: In 1982 about 3 months not a unit, just a room, so from establishing the unit, the first 6 years of admission.

Outpatient of newborn controls, are also under Neonatology control.

Social Pediatrics: Outpatient, Healthy infants, Control, Intensive Care controls'

AÜTF NEONATOLOJİ ÜNİTESİ RAPORU

TABLO X: 1986 YILINDA SOSYAL PEDIATRİ UYGULAMALARI

AYLAR	H A S T A ÇOCUK POLİKLİNİĞİ		SOSYAL PEDIATRİ	SALI-PERŞEMME SAĞLAM ÇOCUK	YENİDOĞAN YOĞUN BAKIM
OCAK	726		155	114	41
ŞUBAT	669		151	121	45
MART	665		118	117	44
NİSAN	713		159	136	46
MAYIS	559		131	120	39
HAZİRAN	554		93	90	41
TEMMUZ	720		130	127	56
AĞUSTOS	551		136	130	57
EYLÜL	703		249	201	56
EKİM	726		217	166	45
KASIM	731		243	186	48
ARALIK	513		240	165	36
T O P L A M :	7830		2022	1673	534

Figure 4/4: Social Neonatology outpatient survey, controls

Outpatient of Pediatrics during months mean 652, for Neonatology 46,2 as 31% cases, one third.

Mortality rates in intensive care and about the Pediatric mortality consideration

TABLO IV: 1983-1988 YILLARINA GÖRE NEONATOLOJİ ÜNİTESİ MORTALİTELERİ

YILLAR	ÖLEN BEBEK ADEDİ	YENİDOĞAN SERVİS MORTALİTE ORANI(%)	GENEL MORTALİTE ORANI (%)
1983	67	21.5	13.2
1984	118	32.2	15.8
1985	175	32.2	18.0
1986	181	30.7	16.4
1987	159	26.0	14.5
1988	200	33.0	20.4
T O P L A M	900	31.6	16.6

Figure 4/5: The mortality death ratio is higher, because about below 1500 grams preterm.

Mortality ration of preterm infants as 31,6%. As literature reports, it is dropped from 59 to 26%. Thus, after a week, letting to die, euthanasia, anomaly confirmed infants not in statistics.

Total evaluation of infant, in 1983-1987 as cause of first reason of death

TABLO VIII: NEONATOLOJİ SERVİSİNDE ÖLEN BEBEKLERİN İLK ÖLÜM NEDENLERİ

ÖLÜM NEDENLERİ	1983-1985		1986 YILI		1987 YILI		TOPLAM	
	Sayı	%	Sayı	%	Sayı	%	Sayı	%
1. Solunum ve Dolaşım Sistemi . . .	131	46.5	118	65.2	82	51.6	331	53.2
-Prematürelilik + Respiratuvar distres	47		74		52		173	
-Respiratuvar distres	32		16		4		52	
-Solunum ve Dolaşım Yetmezliği	29		13		7		49	
-Asfiksi, hipoksi, anoksi	23		15		19		57	
2. Enfeksiyon Hastalıkları	65	23.0	31	17.1	53	33.3	149	24.0
-Sepsis (Prematürelilik & DIC birlikte)	56		28		50		134	
-Pnömoni	4		2		2		8	
-Gastroenterit	3		-		1		4	
-Diğer (Tetanoz, intra uterin i.)	2		1		-		3	
3. İmmatürite & Prematürelilik . . .	49	17.4	11	6.1	9	5.7	69	11.1
-RDS ve Sepsis dışı olan ölümler								
4. Konjenital anomaliler	19	6.7	11	6.1	3	1.9	33	5.3
-Konjenital kalp hastalığı . .	7		3		1		11	
-Diğer anomaliler	12		8		2		22	
5. Doğum travması	4	1.4	3	1.7	1	0.6	8	1.3
6. Diğer nedenler	14	5.0	7	3.8	11	6.9	32	5.1
-Yaygın damar içi pıhtılaşma (DIC)	8		4		4		16	
-Kernicterus	3		1		1		5	
-Akut böbrek yetmezliği . . .	2		-		4		6	
-İleus	1		1		2		4	
-Neonatal hepatit	-		1		-		1	
T O P L A M	282	100.0	181	100.0	159	100.0	622	100.0

Figure 4/6: The ratio between the years as 100%

Causes mainly as expected RDS 53,2. For preterm: RDS, sepsis, immaturity, anomaly as 409 infants to 622 cases, thus, 66% deaths for preterm, main group.

In 1986-1987 the ICD Codes of the infants at Neonatology Unit

TABLO VII: 1986-1987 YILLARININ YENİDOĞAN SERVİSİNDE İZLENEN BEBEKLERİN İLK YATIŞ TANILARI

ICD KODU	HASTALIK ADI	1986		1987	
		Olgu Sayısı	%	Olgu Sayısı	%
009.0	Gastroenterit	4	0.7	23	4.1
038.9	Sepsis	28	5.1	44	7.9
228.1	Lenfangiom	-	-	1	0.2
255.2	Adrenogenital sendrom	1	0.2	-	-
272.7	Lipoid depo hastalığı	-	-	1	0.2
289.7	Methemoglobinemi	1	0.2	-	-
322.9	Menenjit	-	-	1	0.2
343.9	Serebral Palai	2	0.4	-	-
376.5	Enoftalmi	1	0.2	-	-
286	Prömoni	1	0.2	15	2.7
519.9	Üst solunum yolu infeksiyonu	1	0.2	-	-
553.1	Omfalosei	1	0.2	-	-
560.9	Gastrointestinal obstruksiyon	-	-	4	0.7
646.6	Intrauterin infeksiyon	-	-	1	0.2
658.1	Erken membran rüptürü	-	-	4	0.7
686.0	Piyodermi	-	-	1	0.2
868.9	Saçlı deride infeksiyon	1	0.2	-	-
711.0	Septik artrit	-	-	1	0.2
740.0	Anensefali	3	0.5	1	0.2
741.9	Meningosei, Myelosei, Ensefalosei	18	3.2	9	1.6
742.1	Mikrosefali	1	0.2	-	-
742.3	Hidrocefali	-	-	1	0.2
764.8	Ectopia cordis	1	0.2	-	-
746.9	Kongenital kalp hastalığı	6	1.1	2	0.4
749.1	Yarık dudak, yarık damak	4	0.7	-	-
751.5	İnperfore anus	2	0.4	-	-
753.3	Anuri	1	0.2	-	-
753.9	Üriner sistem malformasyonu	-	-	4	0.7
756.5	Osteogenezis imperfekta	-	-	3	0.5
756.7	Gastroözizis	-	-	1	0.2
756.9	Eklemler malformasyonu	-	-	2	0.4
758.0	Down sendromu	-	-	2	0.4
761.5	İkiz eşi	26	4.7	-	-
763.1	İri bebek	2	0.4	-	-
764.1	Intrauterin malnutrisyon	4	0.7	5	0.9
765.1	Prematürelilik	182	32.9	139	25.0
766.2	Postmatürite	-	-	2	0.4
767.1	Sefal hematom	2	0.4	1	0.2
767.9	Doğum travması	7	1.3	-	-
768.9	Asfiksi	33	6.0	20	3.6
770.1	Aspirasyon(Makoniyum, amnion, sıvı)	29	5.2	14	2.5
770.3	Akciğer kanaması	2	0.4	-	-
770.8	Respiratuvar distres & Siyanoz	79	14.3	53	9.5
771.3	Yenidoğan tetanozu	2	0.4	-	-
771.4	Omfalit	1	0.2	-	-
771.8	İdrar yolu infeksiyonu	-	-	2	0.4
772.4	Gastro-intestinal kanama	1	0.2	3	0.5
772.9	Yenidoğanın hemorajik hastalığı	2	0.4	-	-
773.2	Anemi	1	0.2	7	1.3
774.4	Neonatal hepatit	1	0.2	-	-
774.6	Hiperbilirubinemi	155	28.0	149	26.8
775.0	Diabetik anne bebeği	3	0.5	7	1.3
775.5	Dehidratasyon	9	1.6	11	2.0
775.6	Hipoglisemi	2	0.4	-	-
778.4	Ateş	1	0.2	-	-
779.0	Konvulsiyon	8	1.4	20	3.6
789.3	Karıncada kitle	1	0.2	1	0.2
821.0	Femur kırığı	1	0.2	-	-

Figure 4/9: For not an indication of Neonatal concept, only some examples of statistics

For all admitted cases are put on the ICD Codes.

For computer taken codes

Figure 4/10: At that duration, time, for computer given codes, special form must be filled.

Mortality rate differences Before and after Neonatology Unit

This is the recorded concepts as given in Turkey State information, at education lectures.

Recorded neonatal death at 1993 to 29, reduced at 2008 to 13.

Recorded Post neonatal death: at 1993 to 23, reduced at 2008 to 4

Recorded Child death: at 1993 to 9, reduced at 2008 to 6

Recorded Infant death: at 1993 to 53, reduced at 2008 to 17

Recorded Below 5 years old death: at 1993 to 61, reduced at 2008 to 24

From 1915 to 2005 Reducing of Neonatal Mortality in all rates

1915-2005 Yenidoğan (en alt mavi), Pediatri ve diğer yaşlar, Genel Mortalite oranları

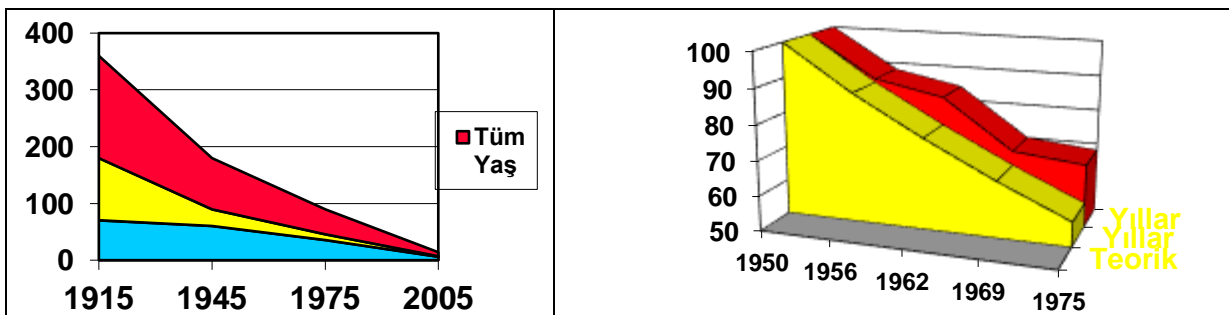


Figure 4/11: At 1945 noticeable, thus at 1975 remarkable lowering.

1945 yılında bir azalma olup, 1975 yılından bu yana giderek azalmıştır. Azalma düz aşağı değil, arada plato çizerek olmuştur.

Neonatology Organization, First, Second- and Third-degree care

Neonatoloji Yapılanmasında İlk, İkinci ve Üçüncü Derece Bakım yapılanması

	First	Degree	Second	Degree	Third	Degree
Nurse	1500g over	NRP	1000g over	NRP	1000g below	NRP
Physician	35-37GW	1 Ped.	32 GW	1/5 bed Ped.	32GW below	Neo
	First	Degree	Second	Degree	Third	Degree
Ratio	85%	15%			Sequel 4-5	Ex 7
1000 birth	850	150 Prob	90	30 Ventilator	30	20
	First	Degree	Second	Degree	Third	Degree
Ratio	16%	15% Risk	6-7%	10% ventilator	1-2%	3%
At 1000birth	160 infants	10 CPAP	60-70 infant	Referred 30	10-20 Vent.	Sequel 5

Figure/Table 4/12: For approach to Neonatology Concept, 150 infants must need care, even 30 for intensive care.

Bin doğumda 150 sorunlu bebek beklenir, bunun 30 adedi Yoğun Bakım bebeğidir.

Mortality Rates; preterm, term and still birth is lowered by Neonatology Concept

Neonatoloji sisteminde, Yenidoğan ve prematüre ölümleri, ölü doğumlar azalır

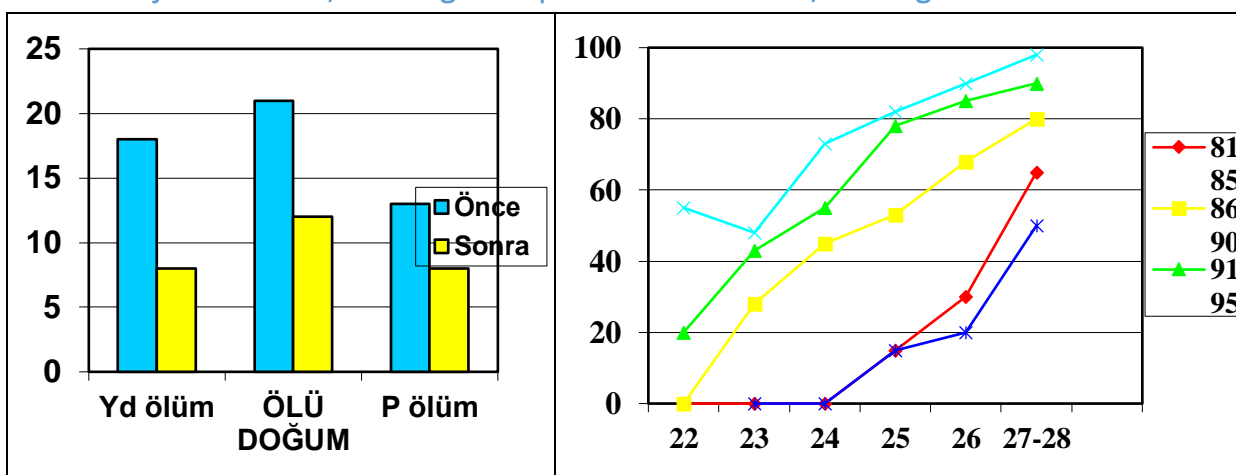


Figure 4/13: For approach to Neonatology Concept, recordable decrease in mortality. Thus, in case of euthanasia, not more than 2 weeks overcome ventilation, anomalies not treated, so at GW nearly 50% cure is not believable.

Birçok yayında 22 GH %20 yaşattıkları belirtiliyor, ötenazi, anomalili ve bir haftada cevap alamayanları istatistikten çıkarıyorlar. 28 GH servisimizde %50 yaşamaktadır.

This Article not on Medical and Neonatology, just given an example. So, not brief explanation about the numbers.

Conclusion on Reasoning and Grounding

Reasoning of establishing, a kind of migration: As a traditional concept, the establishing of the first Neonatology Unit with the grounding and reasonings are noted at this Article.

The point there is a dormitory hospital and even birth and cesarean section performed, so, why need to established a new Unit? This is the confirmation the benefit for newborn infants, especially not only for care and serve, thus educated on Neonatology Medical Branch, giving profession, and being a center of preterm care and serve, such intensive care facilities concept.

The best, by resuscitation and other Right to Life aspect, more than thousand preterm infants now alive and even we noticed graduated from Medicine, Engineering and now married and have children. The love concept on Humanity.

Even a mother of cerebral immaturity, like anencephalous, said to me, about so much thanks. Feeling and holding, and even feeding the real her infant and take care about 6 months, so noticed, perceiving the meaning of mother, so grateful to me.

Not letting to die, not left behind, considered as a living one, so take care, love and be hold as an infant, human child.

This is a migration of the medical concept, as changing the attitude and the perception of looking to the preterm infants, not letting to die.

Grounding for construction to a Unit: There is a Maternity Hospital in Eskişehir. So, need Neonatology concept?

At first being as University of Anadolu, the Medical Faculty Section, started at Hacettepe University, Medical Faculty. Education of Medical Students there, up to internship.

The old Thoracic Diseases Hospital buildings as used before for tuberculosis, completely rearranged for University Model Hospital and given to Anadolu University.

At Eskişehir, there are Academies; Trade and Merchant, and Engineering, as combined, united together with to Anadolu University, in 1982.

Thus, Neonatology not a profession section, so in General Pediatrics, it is a new concept to established Newborn Intensive Care Unit.

Although there is an academic position at Hacettepe University, Authors accepted to come the University as established Newborn Intensive Care, as the first member of academics; Nos: 001.

There is great rejection, on Pediatricians, and other maternal units.

At 1979 years, thus Neonatology Unit configuration at 1982, the Obstetrics and Gynecology assistants were working at Eskişehir Governmental Maternity Hospital, and we, authors and some OBGYN and pediatric assistants, were visiting them, education and concerning the infants.

One day, I saw an infant, on basin, left there. I checked 6-10 heart beats, by hand noticed. Taken and gave 47cm Water pressure for opening and 5-6cm routine by mouth.

In education, by 60cm long glass vase, by plastic tubes, try to confirm the pressure. So, this is not exact measurement thus, by estimation.

The nurse, informed and warn me, he is death, not disturb and harm the body. And in addition, indicated as, *“Are you Christ, as making life to death person?”* I reply, *“yes, I only did what Crist did before, not a Christ, but knew the act”*. *“If you learn it, you can do what Christ performed.”* This makes a great stimulus, so everyone wants to educate, being on certification program, so, later not any opposition required.

Migration of the Author: The migration to Eskişehir not by force, just for demand to establish a new unit. So, the Author, the individual must be distinguished, whether it is factual or not.

Education Primary, Secondary and Lycée on TED Ankara Collage. For Erzurum Medical Faculty gained at 6th line, in 1966, so, educated at Ankara University, in 1966 later to Hacettepe University, in 1968. Basic medical sciences, medical clinical sciences, internship, even also at Guy's Hospital in General Surgery, London, in 1970, and graduated at Hacettepe University Medical Faculty in 1971. First line Research Assistant, and chief resident in 1976-77. Being a pediatrician in 1977.

As an opportunity being an academic career education, wanted to established a new unit in Eskişehir.

Dad, opposed, and I said, you were the primary graduate in 1941 of İstanbul, so had chance further education, selected to work for malaria and tuberculosis medical treatment. He, father respond as, they need physician. So, later indicated for 5 years being established, if not return to Hacettepe. In 1982 Associated Prof and in 1982 established the Unit.

From no patient bed, not any delivery room, and not any nurse or other medical staff. Only 5-10 children admitted on outpatients.

So, not forgive, not even hesitate, go forward, walk on goodness, for medical unit. That is why we are educated.

References

- M. Arif Akşit: Neonatolojiye Giriş (Introduction to Neonatology), Anadolu Üniversitesi Tıp Fakültesi, Anadolu Üniversitesi Yayınları: Eskişehir, 1987 Turkey.
- M. Arif Akşit: Yenidoğana Giriş (Introduction to Newborn): Anadolu Üniversitesi Yayınları; No: 716, Açık Öğretim Fakültesi Yayınları; No:352, Sağlık Personeli Önlisans Eğitimi, Eskişehir, 1993.