



Indagine multicentrica regionale sulla morte fetale e neonatale precoce

Jasenska Sarajlija
Stefano Parmigiani
Moiria Angeloni
Giovanni Elena

Definizione

- OMS: nato morto (≥ 1000 g peso alla nascita o $\geq 28^*$ settimane complete di età gestazionale) ... ≥ 22 settimane.
- aborto tardivo o morte intrauterina (stillbirth): >20 sett
- la morte fetale intrauterina come una perdita fetale in una gravidanza dopo la 20a settimana di gestazione o, in caso di epoca gestazionale non conosciuta, peso ≥ 500 g, che corrisponde circa alla 22° sett. di un feto con crescita regolare
- registri di morte USA, la morte fetale precoce (dalla 20a alla 28a settimana) e morte fetale tardiva (oltre la 29a settimana)
- dopo il 180° giorno, ma prima del termine di nascita.

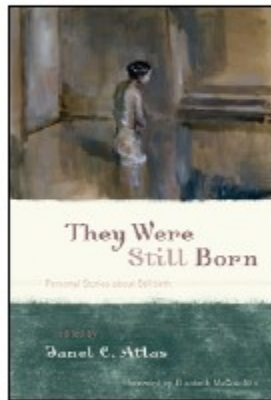
Epidemiologia

- Paesi ricchi: 1/200 donne che raggiungono la 22 sett. di gravidanza avrà un bambino nato morto
- Circa 3 milioni/aa nel mondo (98% nei paesi) corrispondente a 11 coppie di genitori/al giorno nel Regno Unito
- 6,5 /1000 gravidanze portate al terzo trimestre.

THE LANCET

Book

Breaking the silence around stillbirth



They Were Still Born: Personal Stories about Stillbirth
Janel C. Atlas, ed. Rowman & Littlefield Publishers, Inc. 2010.
Pp 280. US\$32.95.
ISBN 978-1-4422-0412-6

"Childbirth should be a time of joy", declares Janel Atlas in her introduction to this book. But when a baby dies before birth, and has to be pushed out into that world, the contrast with the joyous arrival of a living child could not be greater. "The silence of birthing my stillborn baby shattered me", she writes sombrely.

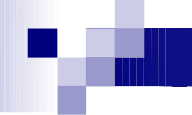
The silence that surrounds stillbirth is a recurring theme in this collection of stories from mothers, fathers, and grandparents of stillborn infants. First, the silence of the birth itself. As one parent describes: "Madeline was born still at 1.20 pm in a cold, sterile

learn to talk and walk, go to school. Say, for example: "I have two children, one living." Anger is also a common component of the enormous grief felt by the parents of stillborn children. One man rails at the fact that he knew nothing about stillbirth before his own child's death.

"The silence that surrounds stillbirth is a recurring theme in this collection of stories from mothers, fathers, and grandparents of stillborn infants."

of the developing world stillbirth is sadly much more common than the one in 200 rate for developed nations. Women in poorer countries may grieve just as much as their sisters in wealthier nations and it would be appropriate to acknowledge this.

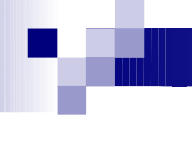
The book concludes with comments on the causes of stillbirth and emerging research. These are mostly sensibly done, explaining that identifiable causes account for less than half of all stillbirths. This is understandably devastating for the 60% of parents who find that even after an autopsy, no reason for



Are perinatal deaths adequately scrutinised?

Steve Gould

Scrutiny of perinatal deaths comprises many different processes and there is no single or direct measure of the success of each component. There is evidence that investigation will be at best variable nationally and imprecision in some definitions and guidance might promote further inconsistency. Parental satisfaction is one measure of success but adequate scrutiny of perinatal deaths should ultimately contribute to a fall in perinatal mortality. This is improving but it is slow, especially in stillbirths. However, as suggested by the recent Centre for Maternal and Child Enquiries, investigation into maternal diabetes services,¹⁵ knowing where the deficiencies lie or what process needs to change is only one part of the equation. Having the capacity or resource to make those changes is quite another.



Bringing stillbirths out of the shadows

“Knowing the causes of stillbirth is essential when designing interventions. However, there are at least 35 published classification systems for the causes of stillbirth, and it is almost impossible to compare them”

Mullan Z, Horton R: www.thelancet.com Vol 377 April 16, 2011

Major risk factors for stillbirth in high-income countries: a systematic review and meta-analysis

Vicki Flenady, Laura Koopmans, Philippa Middleton, J Frederik Freen, Gordon C Smith, Kristen Gibbons, Michael Coory, Adrienne Gordon, David Ellwood, Harold David McIntyre, Ruth Fretts, Majid Ezzati

Summary

Background Stillbirth rates in high-income countries have shown little or no improvement over the past two decades. Prevention strategies that target risk factors could be important in rate reduction. This systematic review and meta-analysis was done to identify priority areas for stillbirth prevention relevant to those countries.

Methods Population-based studies addressing risk factors for stillbirth were identified through database searches. The factors most frequently reported were identified and selected according to whether they could potentially be reduced through lifestyle or medical intervention. The numbers attributable to modifiable risk factors were calculated from data relating to the five high-income countries with the highest numbers of stillbirths and where all the data required for analysts were available. Odds ratios were calculated for selected risk factors, from which population-attributable risk (PAR) values were calculated.

Findings Of 6963 studies initially identified, 96 population-based studies were included. Maternal overweight and obesity (body-mass index >25 kg/m²) was the highest ranking modifiable risk factor, with PARs of 8–18% across the five countries and contributing to around 8000 stillbirths (≥ 22 weeks' gestation) annually across all high-income countries. Advanced maternal age (>35 years) and maternal smoking yielded PARs of 7–11% and 4–7%, respectively, and each year contribute to more than 4200 and 2800 stillbirths, respectively, across all high-income countries. In disadvantaged populations maternal smoking could contribute to 20% of stillbirths. Primiparity contributes to around 15% of stillbirths. Of the pregnancy disorders, small size for gestational age and abruption are the highest PARs (23% and 15%, respectively), which highlights the notable role of placental pathology in stillbirth. Pre-existing diabetes and hypertension remain important contributors to stillbirth in such countries.

Interpretation The raising of awareness and implementation of effective interventions for modifiable risk factors, such as overweight, obesity, maternal age, and smoking, are priorities for stillbirth prevention in high-income countries.

Funding The Stillbirth Foundation Australia, the Department of Health and Ageing, Canberra, Australia, and the Mater Foundation, Brisbane, Australia.



The challenges of reducing risk factors for stillbirths

“Stillbirth, pre-eclampsia, fetal growth restriction, and placental abruption partly share causal factors, and are often referred to as placental dysfunction disorders. These complications tend to recur in successive pregnancies, and they might predispose to each other. The cause of stillbirth is heterogeneous”

Infant mortality and subsequent risk of stillbirth: a retrospective cohort study

EM August,^a HM Salihu,^{b,c} H Weldeselasse,^b BJ Biroscak,^a AK Mbah,^b AP Alio^d

Table 4. Risk of stillbirth among women with a history of infant, neonatal, or post-neonatal death in the first pregnancy (Missouri: 1989–2005)*

	Model 1**			Model 2***		
	Stillbirth after infant death AHR (95% CI)	Stillbirth after neonatal death AHR (95% CI)	Stillbirth after post-neonatal death AHR (95% CI)	Stillbirth after infant death AHR (95% CI)	Stillbirth after neonatal death AHR (95% CI)	Stillbirth after post-neonatal death AHR (95% CI)
Women with previous infant death	3.09 (2.15–4.45)	3.51 (2.34–5.27)	2.11 (0.94–4.70)	2.91 (2.02–4.18)	3.27 (2.18–4.91)	2.02 (0.90–4.50)
Women with no previous infant death	Ref	Ref	Ref	Ref	Ref	Ref
White women with previous infant death	2.08 (1.20–3.60)	2.45 (1.35–4.44)	1.16 (0.29–4.67)	1.96 (1.13–3.39)	2.28 (1.26–4.14)	1.11 (0.28–4.43)
White women with no previous infant death	Ref	Ref	Ref	Ref	Ref	Ref
Black women with previous infant death	4.60 (2.82–7.52)	5.18 (2.96–9.06)	3.34 (1.25–8.91)	4.28 (2.61–6.99)	4.84 (2.49–8.47)	3.07 (1.40–8.24)
Black women with no previous infant death	Ref	Ref	Ref	Ref	Ref	Ref

*Significant values are set in bold font.

**Adjusted for sociodemographic variables.

***Adjusted for model 1 plus pregnancy complications.



Previous Stillbirth, Late Preterm, and Early-Term Birth

Robert M. Silver, MD

Table 1 Stillbirth: Risk Factors

Condition	Prevalence, %	SB Rate/ 1000	SB:OR
Chronic HTN	6-10	6-25	1.5-2.7
Mild PIH	5.8-7.7	9-51	1.2-4.0
Severe PIH	1.3-3.3	12-29	1.8-4.4
Diabetes (diet)	2.5-5.0	6-10	1.2-2.4
Diabetes (insulin)	2.4	6-35	1.7-7.0
SLE	<1	40-150	6-20
Renal disease	<1	15-200	2.2-30
Thyroid disorders	0.2-2	12-20	2.2-3.0
Thrombophilia	1-5	18-40	2.8-5.0
Cholestasis	<0.1	12-30	1.8-4.4
Smoking	10-20	10-15	1.6-3.0
BMI 25-29.9	21	12-15	1.1-2.7
BMI >30	20	13-18	1.3-2.8
<12 years' education	30	10-13	1.6-2.0
Previous IUGR	6.7	12-30	2.0-4.6
Twins	2.7	12	1.0-2.8
Triplets	0.14	34	2.8-3.2
35-39 years	15-18	11-14	1.4-2.2
≥40 years	2	11-21	1.6-2.2
Non-Hispanic black	15	12-14	2.0-2.2

Modified with permission from Fretts²⁸ and Reddy et al.²⁹

BMI, body mass index; HTN, hypertension; IUGR, intrauterine growth restriction; PIH, pregnancy-induced hypertension; SLE, systemic lupus erythematosus.

Table 2 Management of Subsequent Pregnancy After Stillbirth

Preconception or Initial Prenatal Visit	Detailed medical and obstetrical history
	Evaluation/workup of previous stillbirth Determination of recurrence risk Discussion of increased risk of other obstetrical complications Smoking cessation Weight loss in obese women Genetic counselling if family genetic condition exists Support and reassurance
First trimester	Dating ultrasonography by crown-rump length First-trimester screen: PAPP-A, hCG, and nuchal translucency Diabetes screening Antiphospholipid antibodies Thrombophilia workup depending on previous pregnancy circumstances Support and reassurance
Second trimester	Fetal anatomic survey at 18-20 weeks Quadruple screen: MSAFP, hCG, estriol, and inhibin-A Uterine artery Doppler studies at 22-24 weeks* Support and reassurance
Third trimester	Serial ultrasonography to rule out fetal growth restriction, starting at 28 weeks Fetal movement counting starting at 28 weeks Antepartum fetal surveillance starting at 32 weeks or 1-2 weeks earlier before gestational age of previous stillbirth as clinically appropriate Support and reassurance
Delivery	Elective induction at 39 weeks or before 39 weeks if desired by the couple and fetal lung maturity documented by amniocentesis

Reprinted with permission from Reddy.²⁹

hCG, human chorionic gonadotropin; MSAFP, maternal serum alpha fetoprotein; PAPP-A, pregnancy-associated plasma protein A.

*Provides risk modification but does not alter management.

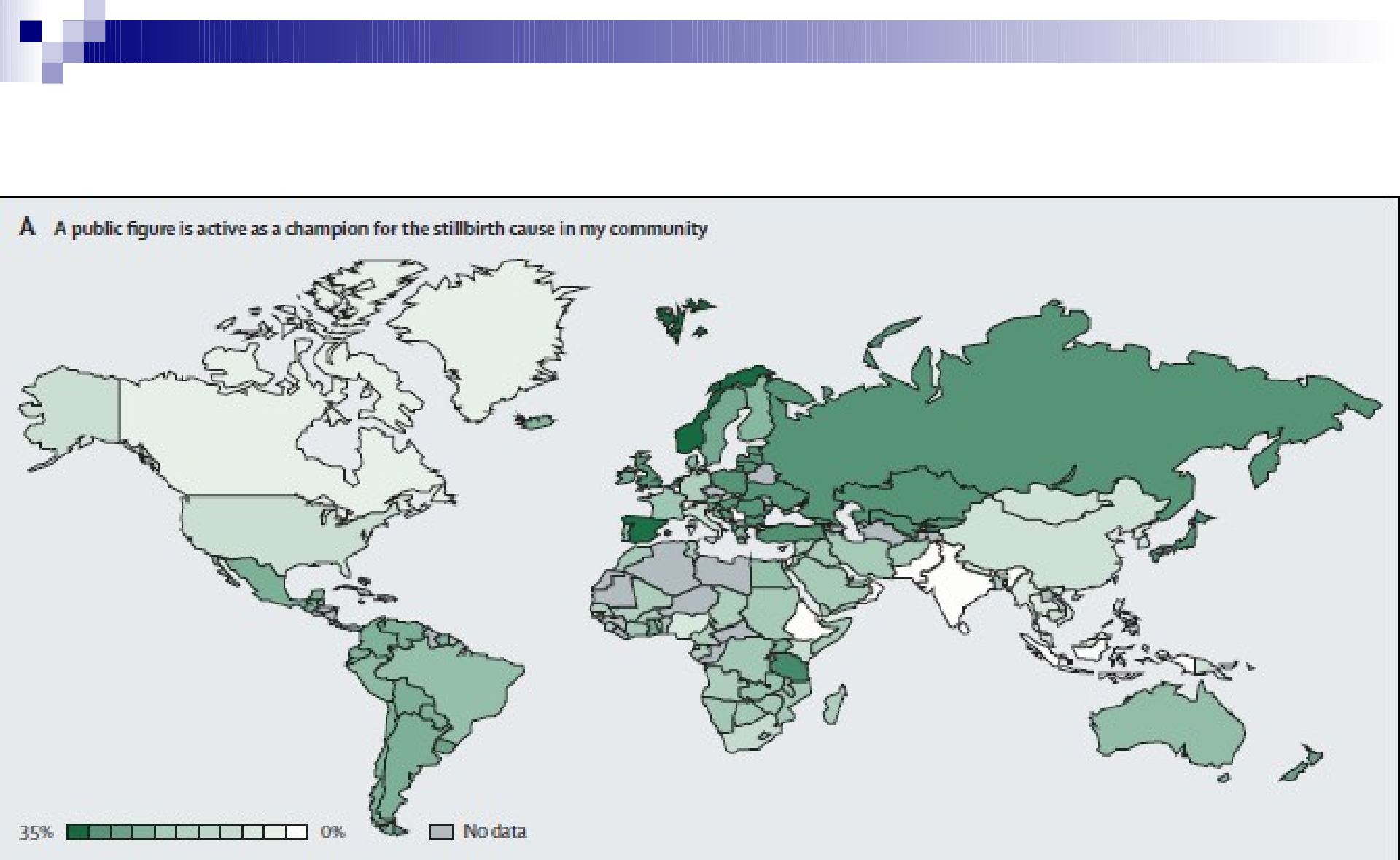


Stillbirths: why they matter

*J Frederik Frøen, Joanne Cacciatore, Elizabeth M McClure, Oluwafemi Kuti, Abdul Hakeem Jokhio, Monir Islam, Jeremy Shiffman, for The Lancet's Stillbirths Series steering committee**

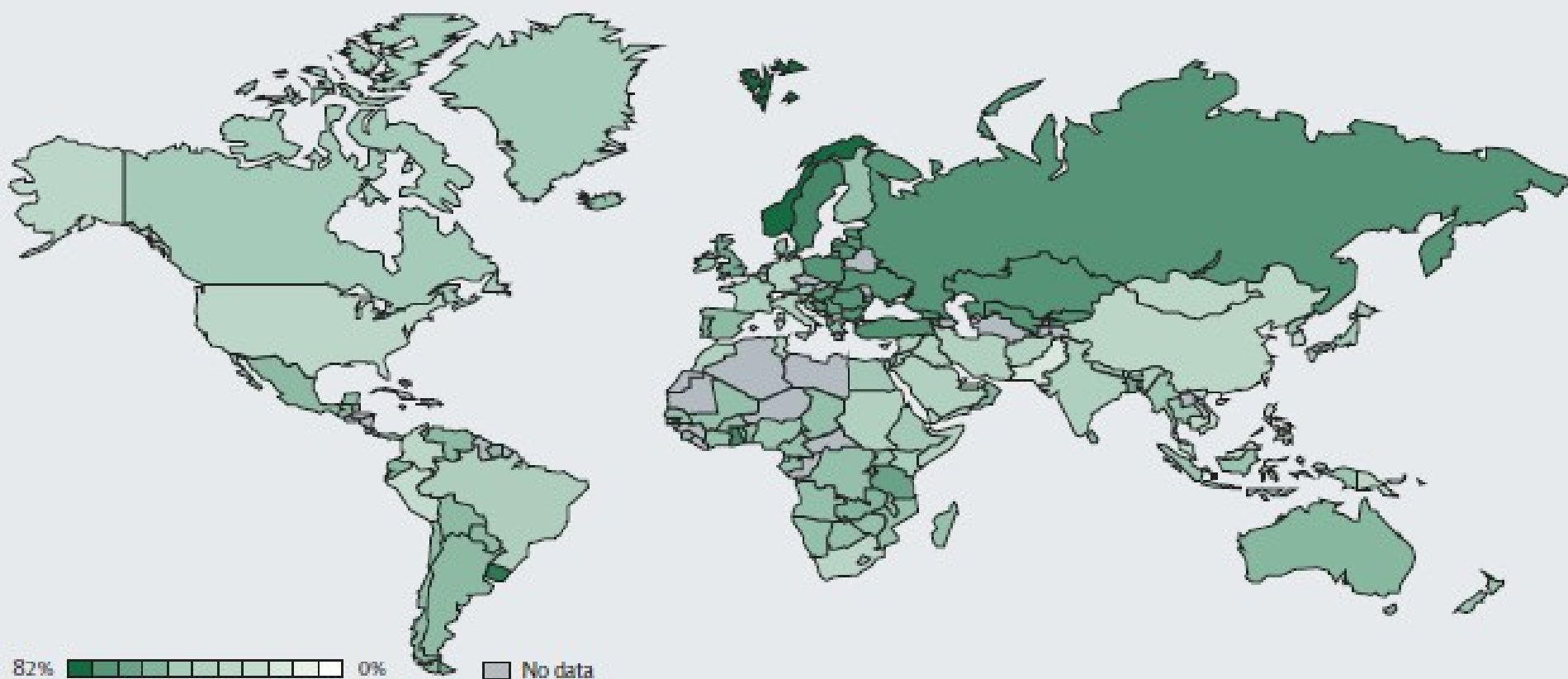
In this first paper of *The Lancet's* Stillbirths Series we explore the present status of stillbirths in the world—from global health policy to a survey of community perceptions in 135 countries. Our findings highlight the need for a strong call for action. In times of global focus on motherhood, the mother's own aspiration of a liveborn baby is not recognised on the world's health agenda. Millions of deaths are not counted; stillbirths are not in the Global Burden of Disease, nor in disability-adjusted life-years lost, and they are not part of the UN Millennium Development Goals. The grief of mothers might be aggravated by social stigma, blame, and marginalisation in regions where most deaths occur. Most stillborn babies are disposed of without any recognition or ritual, such as naming, funeral rites, or the mother holding or dressing the baby. Beliefs in the mother's sins and evil spirits as causes of stillbirth are rife, and stillbirth is widely believed to be a natural selection of babies never meant to live. Stillbirth prevention is closely linked with prevention of maternal and neonatal deaths. Knowledge of causes and feasible solutions for prevention is key to health professionals' priorities, to which this Stillbirths Series paper aims to contribute.

***Lancet* 2011; 377: 1353–66**



Lancet 2011; 377: 1353–66

B An institution is clearly guiding prevention efforts in my community



Lancet 2011; 377: 1353–66

Sudden Infant Death Syndrome and Sudden Intrauterine Unexplained Death: Correlation Between Hypoplasia of Raphé Nuclei and Serotonin Transporter Gene Promoter Polymorphism

ANNA M. LAVEZZI, VALENTINA CASALE, ROBERTA ONEDA, DEBRA E. WEESE-MAYER, AND LUIGI MATTURRI

"Lino Rossi" Research Center for the Study and Prevention of Unexpected Perinatal Death and SIDS, Department of Surgical, Reconstructive and Diagnostic Sciences [A.M.L., V.C., R.O., L.M.], University of Milan, Milan 20122, Italy; Center for Autonomic Medicine in Pediatrics [D.E.W.-M.], Northwestern University Feinberg School of Medicine, Chicago, Illinois 60614

ABSTRACT: This study, besides to delineate the cytoarchitecture and the localization in the brainstem of the human raphe nuclei, aims to evaluate the correlation between neuropathological raphe defects and serotonin transporter gene (5-HTT) promoter region polymorphisms in a subset of 38 SIDS victims, 12 sudden intrauterine unexplained deaths (SIUD), and 14 controls. The results show that the raphe nuclei and prenatal smoke exposure. A further consideration of the authors is that SIUD should not be regarded as a separate entity from SIDS, given the potentially shared neuropathological and genetic bases. (*Pediatr Res* 66: 22–27, 2009)

L. allele represents a predisposing factor for sudden fetal and infant death in association with morphologic developmental defects of the raphe nuclei and prenatal smoke exposure. A further consideration of the authors is that SIUD should not be regarded as a separate entity from SIDS, given the potentially shared neuropathological and genetic bases. (*Pediatr Res* 66: 22–27, 2009)

Table 2. *Overall neuropathological brainstem findings in 28 SIDS, 12 SIUD, and 17 controls*

Study group	Number of cases (%)			
	Arcuate nucleus hypoplasia	Pre-Bötzinger nucleus hypoplasia	Parafacial nucleus hypoplasia	Raphe nuclei hypoplasia
SIDS ($n = 28$)	9 (32%)	2 (7%)	—	16 (57%)
Infant controls ($n = 11$)	2 (18%)	—	—	3 (27%)
SIUD ($n = 12$)	5 (42%)	—	6 (50%)	8 (67%)
Fetal controls ($n = 6$)	2 (33%)	—	—	1 (17%)

ClR, caudal linear raphe nucleus; DoR, dorsal raphe nucleus; MaR, magnus raphe nucleus; MeR, median raphe nucleus; ObR, obscurus raphe nucleus; PaR, pallidus raphe nucleus.

Table 3. *Frequencies of 5-HTT promoter polymorphism allele and genotype frequencies in SIDS and SIUD cases and controls*

	5-HTT promoter region polymorphisms		
	SIDS (n = 28)	SIUD (n = 12)	Controls (n = 17)
Allele frequencies	% of cases	% of cases	% of controls
S	38	45	65
L	62	55	35
Genotype frequencies	Number of cases (%)	Number of cases (%)	Number of cases (%)
S/S	4 (14)	2 (20)	7 (41)
S/L	13 (47)	6 (50)	8 (47)
L/L	11 (39)	4 (30)	2 (12)

caudal mesencephalon

ROSTRAL RAPHE GROUP

dorsal raphe nucleus
caudal linear nucleus



rostral pons

median raphe nucleus



caudal pons

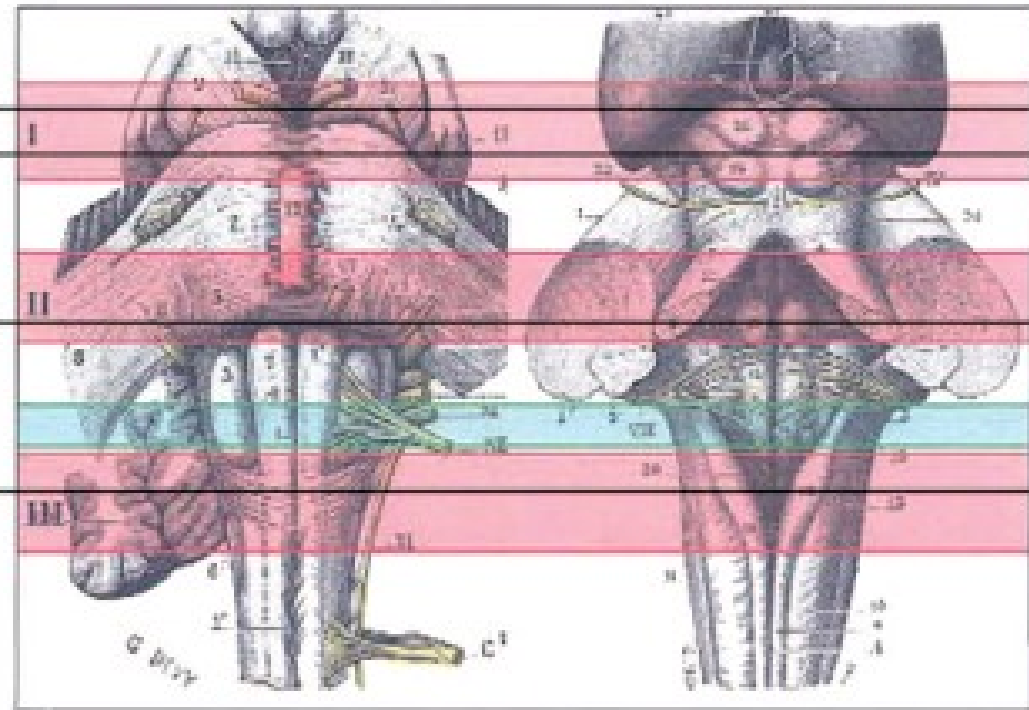
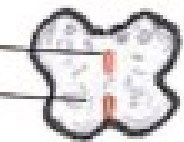
CAUDAL RAPHE GROUP

magnus raphe nucleus



medulla oblongata
(obex)

obscurus raphe nucleus
pallidus raphe nucleus

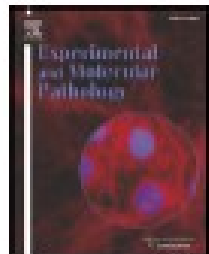




Contents lists available at ScienceDirect

Experimental and Molecular Pathology

journal homepage: www.elsevier.com/locate/yexmp



Optimisation of postmortem tissue preservation and alternative protocol for serotonin transporter gene polymorphisms amplification in SIDS and SIUD cases

Valentina Casale¹, Roberta Oneda¹, Anna Maria Lavezzi, Luigi Matturri^{*}

¹“Lino Rossi” Research Center for the study and prevention of unexpected perinatal death and SIDS, University of Milan, via Commedia 19, 20122 Milan, Italy

ARTICLE INFO

Article history:

Received 28 January 2009

and in revised form 8 October 2009

Available online 23 October 2009

Keywords:

Postmortem tissues preservation

Serotonin transporter gene promoter

SIDS

SIUD

ABSTRACT

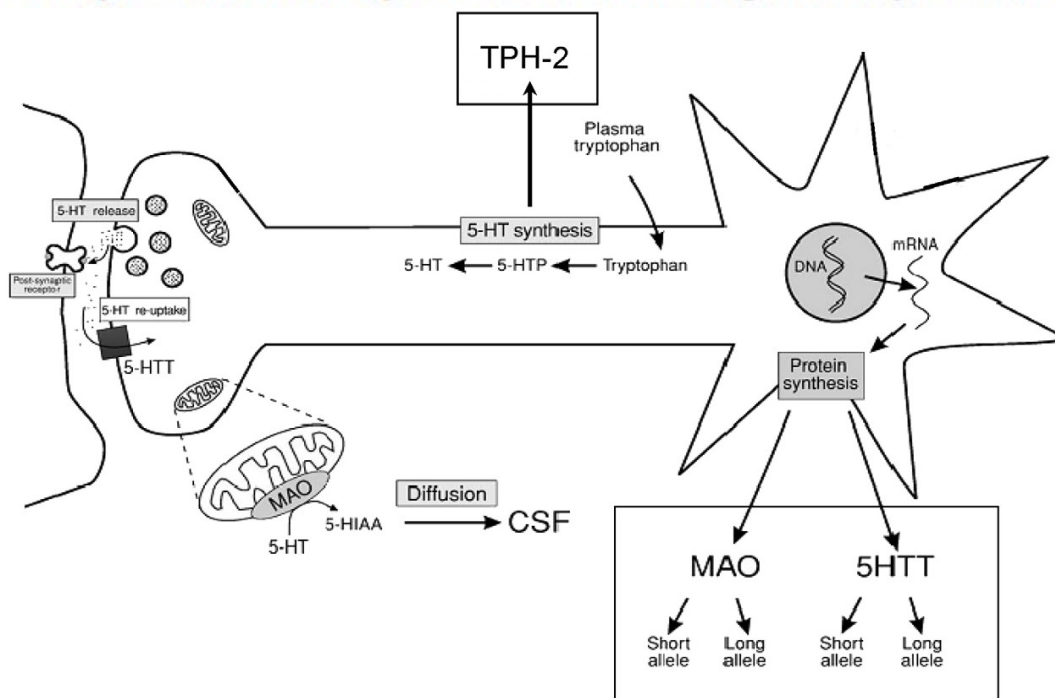
The major obstacle to genetic research in SIUD (sudden intrauterine unexplained death) and SIDS (sudden infant death syndrome) cases is the complex characteristics of the human anatomic samples available. In fact, in Italy autopsies are performed at least 24 h post-mortem and tissues can be left in formalin for long fixation times (>4/5 days), thus compromising nucleic acids integrity. In this study we compared the quality of DNA and RNA extracted from tissues differently preserved. As expected, the DNA and RNA from formalin-fixed and paraffin-embedded tissues, formalin-acetic acid-alcohol tissues and ethanol tissues were of poor quality and not adequate for subsequent molecular analysis. The best results were obtained with RNAlater preserved tissues: this buffer was equivalent, if not superior, to freezing method for preservation of postmortem DNA and RNA.

In addition, we introduce a new protocol for the amplification of the serotonin transporter gene promoter region (5-HTT) ideal to obtain the increase of specific product, avoiding artifacts formation.

© 2009 Elsevier Inc. All rights reserved.

Genes regulating the serotonin metabolic pathway in the brain stem and their role in the etiopathogenesis of the sudden infant death syndrome

Francesco Nonnis Marzano ^{a,*}, Milena Maldini ^a, Laura Filonzi ^a, Anna Maria Lavezzi ^b, Stefano Parmigiani ^c, Cinzia Magnani ^c, Giulio Bevilacqua ^c, Luigi Maturri ^b





Am J Forensic Med Pathol. 2009 Mar;30(1):64-8.

A case of stillbirth: the importance of placental investigation in medico-legal practice.

Marchetti D, Belviso M, Fulcheri E.

Istituto di Medicina Legale, Università Cattolica del Sacro Cuore, Roma, Italy. d.marchetti@rm.unicatt.it

Abstract

The authors present a case of stillbirth in which histologic examination of the placenta provides the opportunity to make a definitive diagnosis of a death due to fetal thrombotic vasculopathy (FTV). Establishing the etiology in cases of stillbirth may avoid medical malpractice litigation. The better knowledge of the cause of stillbirths also helped obstetricians to recognize factors that could have prejudiced future pregnancies.

PMID: 19237859 [PubMed - indexed for MEDLINE]

Absolute shortness of the umbilical cord and hypoplasia of the arcuate nucleus and of the parabrachial/Kölliker-Fuse complex in a case of sudden intrauterine fetal death

Dear Editor,

We report a case of sudden unexplained late fetal death at 41 + 4 gestational weeks, following physiological pregnancy, in which an absolute shortness of the umbilical cord was observed in association with developmental alterations of vital centers of the brainstem.

over 6.3 million perinatal deaths a year. Stillbirths account for over half of all perinatal deaths, and two-thirds of stillbirths are unexplained, even after routine diagnostic examinations [1].

In conclusion we wish to stress that a thorough examination of the autonomic nervous system as well as of fetal adnexa is essential in the investigation of sudden fetal death victims.

Mingrone R., Fulcheri E. European Journal of Obstetrics & Gynecology and Reproductive Biology 147 (2009) 111–115



Indagine retrospettiva

- Costituire un gruppo di lavoro
- Valutare l'epidemiologia dei casi in Liguria
- Evidenziare informazioni a disposizione attualmente su questo tipo di eventi
- Porre le basi per una raccolta dati omogenea prospettica
- Ricadute pratiche sull'attività clinica e programmazione sanitaria
- Assistenza e counseling più mirato alle pazienti/famiglie



Caratteristiche dello studio: pazienti

- Potranno essere inclusi i dati riguardanti tutti i feti deceduti ($\geq 22^\circ$ sett.) dal 1/1/2008 al 30/6/2011 nei punti nascita della Liguria ed i neonati deceduti entro la prima settimana di vita per causa improvvisa ed imprevedibile



Modalità di raccolta dati

- Indagine retrospettiva in base ai dati disponibili dalle cartelle cliniche e registri, archivio di indagini diagnostiche etc..
- Compilazione delle schede predisposte

Tipo di dati

Scheda di rilevazione dati nei casi di SIUD (morti fetali del terzo trimestre/ nati morti/ morte neonatale precoce senza causa nota)

Dati riguardanti la madre

Cognome _____ Nome _____ Data di nascita ____ / ____ / ____
Comune di nascita _____ Provincia di nascita _____
Etnia
☐ Caucasica ☐ Ispanica ☐ Medio Orientale ☐ Indiana (subcontinente) ☐ Asiatica
☐ Nera ☐ Meticcia ☐ Altra ☐ Sconosciuta ☐ dato mancante ☐ Magrebina

Dati riguardanti il padre

Cognome _____ Nome _____ Data di nascita ____ / ____ / ____
Comune di nascita _____ Provincia di nascita _____
Etnia
☐ Caucasica ☐ Ispanica ☐ Medio Orientale ☐ Indiana (subcontinente) ☐ Asiatica
☐ Nera ☐ Meticcia ☐ Altra ☐ Sconosciuta ☐ dato mancante ☐ Magrebina

Consanguineità dei genitori? ☐ dato mancante ☐ SI ☐ NO

Precedenti concepimenti ☐ SI ☐ NO

N° parti precedenti N° nati vivi N° nati morti (>22 settimane - OMS 1995)

N° aborti spontanei Settimane per aborto

Data ultimo parto precedente (gg/mm/aaaa): ____ / ____ / ____

Tipo di dati

La madre è fumatrice?	☐ Dato mancante	☐ SI	☐ NO	
La madre ha fumato in gravidanza?	☐ Dato mancante	☐ SI	☐ NO	
Numero di sigarette	☐ 0-5	☐ 5-10	☐ 10-15	☐ > 15
Fumo passivo?	☐ Dato mancante	☐ SI	☐ NO	
La madre abusa di sostanze alcoliche?	☐ Dato mancante	☐ SI	☐ NO	
La madre è risultata positiva al virus dell'HIV?	☐ Dato mancante	☐ SI	☐ NO	
La madre fa uso di sostanze stupefacenti?	☐ Dato mancante	☐ SI	☐ NO	
La madre ha fatto uso di sostanze stupefacenti in gravidanza?	☐ Dato mancante	☐ SI	☐ NO	
La madre ha fatto uso di farmaci in gravidanza?	☐ Dato mancante	☐ SI	☐ NO	

Tipo di dati

Informazioni sulla gravidanza

Data ultima mestruazione (gg/mm/aaaa) / /

Data presunta parto anamnestico (gg/mm/aaaa) / /

Data presunta del parto ecografico (gg/mm/aaaa) / /

N° visite di controllo in gravidanza Prima visita di controllo in gravidanza a settimane:

Patologie gestanti

- Malattia ipertensiva ☐Dato mancante ☐pregestazionale ☐gestazionale NO
- Diabete ☐Dato mancante ☐pregestazionale ☐gestazionale ☐NO
- Alterazioni della coagulazione ☐Dato mancante ☐SI ☐NO
 - ☐Fattore V di Leiden ☐Resistenza proteina C attivata ☐Mutazione gene protrombina
 - ☐Deficit proteina C ☐Deficit proteina S ☐Iperomocisteinemia ☐MTHFR deficit
- Malattie autoimmuni ☐Dato mancante ☐SI ☐NO
 - Specifica ☐S. Sjogren ☐S. Anticorpi antifosfolipidi ☐LES ☐Altro
- Infezione materna preconcezionale ☐HIV ☐HBV ☐HCV ☐LUE
 - ☐TOXO ☐CMV ☐RUBEO ☐Altro
- Infezione materna peri – postconcezionale ☐TOXO ☐CMV
 - ☐RUBEO ☐Varicella zoster virus ☐Parvovirus B19 ☐Coccidie
 - ☐Strepto B emol. Gr. B ☐Listeria ☐E coli ☐Ureaplasma
 - ☐urealyticum ☐Mycoplasma hominis ☐Altro
- Altre patologie della gestante ☐Disturbi tiroide ☐Ipofisi ☐Cardiopatie
 - ☐Patologie renali ☐Colestasi gravidica ☐Parodontopatie ☐Altro

Tipo di dati

Test di screening per cromosomopatie

Screening	☐ Dato mancante	☐ SI	☐ NO
NT	☐ Dato mancante	☐ Patologico	☐ Non patologico
NT + BI TEST	☐ Dato mancante	☐ Patologico	☐ Non patologico
Tripla TEST	☐ Dato mancante	☐ Patologico	☐ Non patologico
Se patologico, specifico	☐ Dato mancante	☐ S. di DOWN	☐ DTN

Indagini prenatali invasive

- Biopsia villosoriale effettuata

☐ Dato mancante	☐ Normale	☐ Patologica	☐ Non
Se patologica, specifica			
- Amniocentesi effettuata

☐ Dato mancante	☐ Normale	☐ Patologica	☐ Non
Se patologica, specifica			

Tipo di dati

☐ Funicolocentesi ☐ Data mancante ☐ Normale ☐ Patologica ☐ Non
 effettuata ☐ Se patologica, specifica

☐ Fetoscopia ☐ Data mancante ☐ Normale ☐ Patologica ☐ Non effettuata

☐ Ecografia ☐ Data mancante ☐ Normale ☐ Patologica ☐ Non effettuata

☐ Malformazioni Fetalì ☐ Malformazioni cardiache ☐ SNC ☐ Parete addominale

☐ Tratto gastroenterico ☐ Arterie ombelicali unica ☐ Apparato muscolare scheletrico

☐ Placenta: ☐ Anomalia di sede e di struttura ☐ Distacco intempestivo placenta

☐ Placenta previa ☐ Vasi Previ ☐ Infarto placentare ☐ Placenta accreta ☐ percreta

☐ Utero Malformazioni ☐ Normale ☐ Malformato

☐ E' stata ricoverata durante la gravidanza? ☐ Data mancante ☐ SI ☐ NO

Tipo di dati

Informazioni evento

Data evento (gg/mm/aaaa)

Ora evento (hh:mm)

Età gestazionale (settimane

compiute)

Data ultimo controllo (gg/mm/aaaa)

Liquido amniotico?

☐ Dato mancante

☐ Normale

☐ Patologico

Se patologico,

specifica

Caratteristiche della placenta

☐ Distacco

☐ Infarto

☐ Inserzione anomala del cordone

Caratteristiche del cordone

- Brevità relative ☐ Dato mancante ☐ SI ☐ NO ☐ Lunghezza del cordone (in cm) ☐ Giri di cordone
- Anomalie spirali ☐ Dato mancante ☐ Iper ☐ Ipo
- Altre malformazioni ☐ Dato mancante ☐ SI ☐ NO Se SI, specifica

Anomalie membrane amniotiche

☐ Dato mancante

☐ SI

☐ NO

Se SI, specifica

Rx scheletro

☐ Dato mancante

☐ Normale

☐ Patologico

Se patologico,

specifica

Data riscontro autoptico (gg/mm/aaaa)

Chi ha effettuato il riscontro autoptico:

Prof./ Dott.....



Comitato Direttivo

- Prof. Parmigiani
- Prof. Trasino
- Prof. Venturini
- Prof. Fulcheri
- Prof. Elena

Centri partecipanti: neonatologia/punti nascita

- Lavagna Dr. Maurizio Ivaldi
- Genova - Galliera Dr. Massimo Mazzella
- Imperia Prof. Mario Cotellessa
- Genova - S. Martino Prof. Sandro Trasino
- Savona Dr. Ammon Cohen Dr.ssa Anna Costa
- Genova- Gaslini Prof. Pasquale Di Pietro Dr.ssa Antonella Palmieri
- Voltri Dr. Enrico Giunta
- Sampierdarena Dr. Stefano Macciò
- Pietra ligure Dr.ssa Carla Navone
- P.O.L.L. La Spezia Prof. Stefano Parmigiani Dr.ssa Jasenka Sarajlija



Centri partecipanti:ginecologia/ostetricia

- Lavagna Prof. Danilo Dodero Dott.ssa Maura Grimaldi
- Genova - Galliera Prof. Felice Repetti Dott. Franco Comandona
- Imperia Prof Franco Gorlero
- Genova-S.Martino Prof. Venturini Dott.ssa Antonella Ferraiolo
- Savona Dr. Salvatore Gazzarelli
- Gaslini Ost. Prof. Giorgio Bentivoglio Dott.ssa Annalisa Brandi
- Voltri Dr. Rodolfo Sirito
- Sampierdarena Dr. Gabriele Vallerino
- Pietra Ligure Dr. Andrea Zolezzi
- P.O.L.L. La Spezia Dr. Giovanni Elena Dr.ssa Moira Angeloni**



Risultati preliminari e parziali

- Schede ancora in fase di compilazione e invio
- Numeri attuali da 4 centri:

60 casi/ 11 500 parti (2008- 1° semestre 2011) ossia 5,2/1000

dati preliminari

- Età materna media 34 anni
- Patologia della gestante 1/3 dei casi analizzati (* bias)
- Patologia/ malformazioni fetali 25% (*)
- Età gestazionale media al momento dell'evento: 31+3 sett, (mediana 31)



Pochi dati ma...

Spesso mancano

- Dati sul padre
- Dati sulle abitudini di vita materne: fumo di sigarette!
- Epoche di eventuali precedenti aborti spontanei



Dati preliminari

- Nati morti da precedenti gravidanze: 0
- Aborti spontanei primo trimestre: 50% dei casi attualmente analizzati (*) con numero variabile per singola donna da 1 a 4 eventi
- Circa 2/3 pluripare



Aumentando i dati....

- informazioni epidemiologiche più precise e affidabili
- disomogeneità dei dati disponibili → discussione e costruzione di un protocollo comune
- elaborazioni statistiche su fattori di rischio
- Work in progress.....



Si ringraziano:

- Tutti i responsabili e referenti dei centri partecipanti
- I medici, infermieri/e e ostetriche del P.O.L.L. S.Andrea - La Spezia
- Fondazione CariSpezia
- Università di Parma - Dipartimento Materno-Infantile e Laboratori Biologia Evolutiva e Funzionale

Grazie per l'attenzione!

