Peertechz

Journal of Cardiovascular Medicine and Cardiology
mail.cardiology@peertechz.com
MEDICAL GROUP
JOURNAL OF Cardiovascular Medicine and Cardiology
ISSN: 2455-2976 DOI: https://dx.doi.org/10.17352/jcmc

Research Article

HELLP syndrome, A real general disease that threatens the maternal morbidity and mortality at the EHU in Oran

Setti Aouicha Zelmat*, N Belhachemie, D Bouabida K Kerbouia, E Boucherit and F Mazour

Resuscitation, Specialized Hospital, oran, Algeria

Received: 08 April, 2020
Accepted: 30 April, 2020
Published: 01 May, 2020

***Corresponding author:** Setti Aouicha Zelmat, Resuscitation, SpecializedHospital, oran, Algeria,
E-mail: Settiaouichazelmat@yahoo.fr

https://www.peertechz.com

Check for updates

Introduction

Hellp Syndrome (hemolysis, elevatedliver enzymes, lowplatelet count) is an obstetric emergency. It is a form of severity of preeclampsia, itsdiagnosisisdifficultbecause the biologicalpictureisoftenincomplete and rough [1-6]. Several classifications have emerged, the best knownisthat of MISSISSIPI. [7-10], defined by:

Class 1: la plus grave, avec :

Platelet count l à ≤ 50,000/ml . ASAT orALAT ≥70 IU/L. .LDH≥ 600 IU/L.

Class 2: Platelet count 500,000/ml - 100,000/ml . ASAT or ALAT ≥70 IU/L . LDH≥ 600 IU/L.

Class 3: Platelet count 100,000/ml _150000/ml . ASAT or ALAT ≥70 I. LDH≥ 600 IU/L.

It is a syndrome thatisoftenvery progressive, sometimeshyperacute in the form of a multi-visceralfailure syndrome. This pathologyisendowedwith a heavymaternofetalmorbidity and mortality. Maternalmorbidityis all the more severe as the diagnosisis made late [11]. HS isassociatedwith 40% of severematernal complications [12], compared to 10% in isolatedseverepre-eclampsia. Incomplete or partial forms have a more favorable maternalprognosisthancompleteformscorrelatedwith the severity of preeclampsia.

Regardless of biologicalcriteria [13]. HS complications are related to systemicfailurecaused by disseminated microangiopathy. Multi-visceralgravidarfailureis an evolution of the diseasebeyond HS and not an intrinsic complication of HS [14].

The main objective of ouris to determine the incidence of complications related to the HELLP syndrome at the gynecologicalobstetricsdepartment of the UniversityHospital Oran.

Patients and methods

Type of study

Weconducted a cross-sectionalstudy over 4 yearsfromJanuary 1st, 2015 to December 31st, 2019, in the Gynecology and ObstetricsDepartment of the Oran EHU, in patients with HS.

Study population

The studyconcerns all patients withpre- or post-partum HS whowereadmitted to the Gynecology and ObstetricsDepartment of Oran EHU.

Criteria for non-inclusion are:

- Class III HS according to the MISSISSIPI classification.
- Thrombocytopenia due to another cause (congenital, thrombocytopenic purpura, uremichemolytic syndrome, hepaticsteatosis).
- An elevation of ASAT and LDH due to another cause.

We first describe the clinicalcharacteristics of the population, including all the patients included in the "2013 to 2016" study, wethenstudy

Citation: Zelmat SA, Belhachemie N, Kerbouia DBK, Boucherit E, Mazour F (2020) HELLP syndrome, A real general disease that threatens the maternal morbidity and mortality at the EHU in Oran. J Cardiovasc Med Cardiol 7(2): 094-097. DOI: https://dx.doi.org/10.17352/2455-2976.000120

Factorsstudied

maternal and fetal complications related to HS: complications consideredwerematernaldeaths, neurological complications (eclampsia, retro placentalhematoma, sub-capsularhematoma of the peroperative and fetal liver (in utero death, spontaneous or iatrogenicprematurity and intrauterinegrowth retardation)

Sample size

Takingintoaccount the prevalence of PE reported in the literature, wecalculatedthatat least 165 cases of pregnantwomenshouldbeincluded.

Practicalorganization

The patient with HS isexaminedrapidly, and her file isseen by the resuscitator, whoassesses the degree of urgency and determines, in collaboration with the obstetrician, the orientation, either in intensive care unit or in GHR unit, or in the operating room or at the delivery block.

The unit of high-riskpregnancies

The major role of the resuscitatorwho must initiate emergency therapyis:

- The stabilization of the lesionwithantihypertensivethera-pywith the electric syringe and orallywith a monitoring of the vital parameters.

- Corticotherapy for pulmonarymaturity and targeted-platelet.

- Transfusion of platelet pellet in HS type 1 (thrombocyto-penia ≤ 50000).

- Monitoring of the clinical and biologicalevolution of HS thatisunpredictable

- The search for complications: .eclampsia ,oedemaaugue of the lung ,

placental retro hematoma, renalfailure ,hematomaunder-capsularliver.

This involves the collaboration of the departments of biology, biochemistry of hemobiology, radiology, hematology and transfusion center.

The passage to the operating room: The treatment of HS isrepresentedprimarily by the termination of pregnancy but thisdecisionmaybeshifted in certain cases, after a multidisciplinarydecision of the resuscitator, the obstetrician and the pediatrician. The important role of the resuscitatoranesthesiologist in the operating room, whichoftenrepresents more than 50% of the decision-to-birth time, must betakenintoaccount by the choice of the type of anesthesiaaccording to the context, and the management of the per and post complications. procedure.

Criteria for transfer to intensive care: It isrecommended to anticipate and organize the continuous surveillance of patients presenting or likely to have one or more organfailures, related to a severeobstetricpathology, or with a maternalpathologycomplicated by pregnancy, and to orient the patient to a resuscitation unit in the event of persistingorganfailurerequiring replacement, multi-visceralfailure or life-threatening conditions according to the agreement establishedbetweeneach unit of obstetrics and an adult intensive care unit, especially if the establishment where the maternitywardislocated has it.

Statisticalanalysis: The descriptive analysis of the variables isdone by calculatingfrequencies, characteristics of central tendency or dispersion: the mean (m), the median (me), the variance ($\sigma 2$), the standard deviation (σ) as well as the determination of the confidence intervals (95% CI) around the mean, and the median (me) for the risk α = 0.05 for the quantitative variables.

The determination of frequencies and confidence intervals for qualitative variables.

The confidence intervalaround the meanisshown by the Standard Deviationaround the mean (mean ± SD).

Result

Population of the study population

During the studyperiod, wecollected 165 cases of HS out of a total of 20,283 deliveries. The estimated incidence of this syndrome is 0.8%, or 1 case for 116 pregnancies. Wefound 167 pre-eclamptic patients admittedduring the sameperiod, the incidence of HS in preeclamptic patients collectedduring the sameperiodis 14.13%.

Of these 165 patients, 121 (73.3%) weretransferredfromano-therperipheralhealthfacility. And 44 patients (26.7%) wererefered to the specialized consultation service of the Oran EHU,

Our patients are mainlymultiparas; the frequency of the multiparityis 45%, the nulliparousis 28.5% and the primiparityis 26.5%. The averageparity in our patients is 2 ± 1 childrenwithextremesrangingfrom 0 to 9 with a median of 1.The averageage of our patients is 32 ± 6.33. Pregnancywas not regularlyfollowedin 97 patients, or 59%. HS wasdiagnosedat an averageterm of 33 weeks of amenorrhea.

Incidences of maternal complications

In ourstudy, 105 patients had complications, 63.6% of whichincludedmaternaldeaths (n= 10),

Wenoted 38 cases of eclampsia: (23, 03%), 20 cases of HRP (12.12%), 17 patients complicated of CIVD (10.3%), and 10 patients complicatedwith PAO: HSCF wasfoundin 11 patients (6.06%), and retinaldetachmentwasfoundin 2 patients (1.21%) and encephalopathyin 3 patients (1.81%). The diagnosis of acute pulmonaryedemaisbased on clinical and radiological data. Abdominal ultrasoundwasperformedsystematically, in view of the persistence of abdominal pain in search of HSCF.

Citation: Zelmat SA, Belhachemie N, Kerbouia DBK, Boucherit E, Mazour F (2020) HELLP syndrome, A real general disease that threatens the maternal morbidity and mortality at the EHU in Oran. J Cardiovasc Med Cardiol 7(2): 094-097. DOI: https://dx.doi.org/10.17352/2455-2976.000120

CIVD wasdefined by the combination of thrombocytope-nialessthan 100,000 platelets / mm-3, fibrinogen<3g / Let, the presence of fibrindegradationproducts or D-dimer> 3 µg / mL.

It isnotedthat acute renalfailurediagnosedwith RIFLE criteriawas the mostfrequent complication foundin 62 patients (37.75%), whichwasestablishedafter an averagedelay of 4.5 after admission of HS. , Diuresiswasretainedin 9 patients while 53 parturientswasoliguricthree patients required extrarenal treatmentwith an average of 6 ± 2.2 sessions per patient, 1 has evolved to chronicrenalfailure,

Impact of fetal complications

The rates of prematurity (ofteniatrogenic), IUGR and MFIU, were 52, 7%, 87.4% and 26% respectively and noted 23 newbornswhodiedatbirth,

Discussion

Our results are consistent in part withthose of the Leboterfseries [15], in 2003, Kirkpatrick [16], in 2008 and Roopa [17], in 2010, with an incidence of HS in relation to the number of pregnanciesrangingfrom 0.2 to 1% of pregnancies.

In 2012, in a retrospectiveMoroccanstudyin 2008, Mamouni [18], out of 61 cases found an incidence of 0.27%, of which 67% weretransfersfromperipheralmaternityhospitals.

In ourstudy, 105 patients had complications, 63.6% whichissimilar to the Mamouni study117 with 74% of the complications, and the study of Hani bilal45 with 52% .But ourresults are superior to the study of Sibaï [19], in 1993 and Beucher [13], in 2008 whofoundthat HS isassociatedwith 40% of maternal complications.

The authors [13,20], findthat the complications are all the more important that the diagnosisis made late. This shows that the discovery of HS islate in ourcontext. So weattribute the complicationsinourstudytoalateconsultation,anon-monitoring pregnancy or adeceptiveclinicalpicturethatiscertainlyat the origin of a lateevacuation.

In ourseries, acute renalfailurewas the mostcommon complication with 39.4%. This is consistent with a Tunisianstudydonein 2000 by Ben letaifa [21], whofoundthat acute renalfailurewas. morefrequentlyfoundin 1/3

cases. This isexplained by the authors, by the constant association, with the vascular-renaldisease, of a dehydrationfavored by the digestive disorders.

Conclusion

The incidence of HS in our institution is high by around 0.8%, due to a high frequency of peripheraltransfers, whichis a clear invitation to action to improve screening, surveillance and treatmentat the periphery

HS is a seriousdisease for the mothersinceitcanpresentitself in the form of a multi-visceralfailure, and fatal for the fetus, the precocity of the treatmentis the onlyguarantee of a betterprognosis.

References

1. Medhioub KF, ChaariA, Turki O, Rgaieg K , Baccouch N , et al. (2016) Actualités sur le syndrome Hellp (Hemolysis, ElevatedLiver enzymes and LowPlatelets); revmed interne 37: 406-411. Link: https://bit.ly/3aln7re
2. Weinstein L (1982) Syndrome of hemolysis, elevated liver enzymes, and low platelet count: a severe consequence of hypertension in pregnancy. ;Am J Obstet Gynecol 142: 159-167. Link: https://bit.ly/2VKeM1U
3. Pourrat O, Pierre F, Magnin G (2009) Le syndrome HELLP: les dix commandements. Revue de médecine interne 30: 58-64. Link: https://bit.ly/2W6AU5C
4. Bacq Y (1997) Acute fatty liver in pregnancy. Gastroenterol Clin Biol 21: 109-115. Link: https://bit.ly/2yUWNga
5. Sibai BM, Ramadan MK, Usta I, Salama M, Mercer BM, et al. (1993) Maternalmorbidity and mortalityin 442 pregnancieswithhemolysiselevatedliver enzymes and lowplatelets (HELLP syndrome). Am J Obstet Gynecol 169: 1000-1006. Link: https://bit.ly/2KITQIB
6. Beaufils M (2002) Hypertension artérielle gravidique. Rev Med Interne 23: 927-938.
7. Carles G (2009) Hellp syndrome/Formes cliniques et étiologies alternatives. Obstétrique 2009. URL: https://bit.ly/3cVVk8c
8. Martin JN, Rose CH, Briery CM (2006) Understanding and managing HELLP syndrome: the integralrole of aggressive glucocorticoids for mother and child. Am J Obstet Gynecol 195: 914-934. Link: https://bit.ly/3aH32la
9. Martin JN, Blake PG, Perry KG, Mc Ccaul JF, Hess LW, et al. (1991)The naturalhistory of HELLP syndrome: patterns of disease progression and regression. Am J Obstet Gynecol 164: 1500-1509. Link: https://bit.ly/35e8jzs
10. Roberts JM, Gammill HS (2005) Preeclampsia: recent insights. Hypertension 46: 1243-1249. Link: https://bit.ly/2y1nFvf
11. Barton JR, Sibai BM (1991) Care of the pregnancycomplicated by HELLP syndrome. Obstet Gynecol Clin North Am 18: 165-179, Link: https://bit.ly/2xhSDP6
12. Haddad B, Barton JR, Livingston JC, Chahine R, Sibai BM (2000) Riskfactors for adverse maternaloutcomesamongwomenwith HELLP (hemolysis, elevatedliver enzymes, and lowplatelet count) syndrome. Am J Obstet Gynecol 183: 444-448. Link: https://bit.ly/2VKdzb0
13. Beucher G,Simonet T, Dreyfus M (2008) Prise en charge du HELLP syndrome. Gynecol Obstet Fertil 36: 1175-1190. Link: https://bit.ly/2YgmqTj
14. Edouard D (2000) Le syndrome Hellp,Vers une définition de la durée du traitement conservateur. Ann Fr Anesth Réanim 19 : 710-127. Link: https://bit.ly/3f1yDRV
15. LeBoterff C, Masson D (2003) Decouverte d'un Hellp syndrome asymptomatique chez une jeune femme drepanocytaireheterozygote A/S. Revue Française des laboratoires 57-59. Link: https://bit.ly/2SkP7uy
16. Kirkpatrick CA (2010) The help syndrome; Acta Clinica Belgica 65: 91-97. Link: https://bit.ly/3bOlusm
17. Roopa S, Hegde HV, BhatPai R, Yaliwal VG, RaghavendraRao P (2010) A case of atypical HELLP (hemolysis, elevatedliver enzymes and lowplatelet count) syndrome presenting as bleedingfrom the epiduralpuncture site during; labour. Current Anaesthesia Critical Care 21: 153-155. Link: https://bit.ly/3aIkLbS
18. Mamouni N, Bougern H, Derkaoui A, Bendahou K, Fakir S, et al. (2012) Le HELLP syndrome: à propos de 61 cas et revue de la littérature. Pan Afr Med J 11: 30. Link: https://bit.ly/3d14sZ4

Citation: Zelmat SA, Belhachemie N, Kerbouia DBK, Boucherit E, Mazour F (2020) HELLP syndrome, A real general disease that threatens the maternal morbidity and mortality at the EHU in Oran. J Cardiovasc Med Cardiol 7(2): 094-097. DOI: https://dx.doi.org/10.17352/2455-2976.000120

19. Sibai BM, Ramadan MK (1993) Acuterenalfailure in pregnanciescomplicated by hemolysis, elevatedliver enzymes and lowplatelets. Am J Obstet Gynecol 168:1682-1690. Link: https://bit.ly/2KGgxHh

20. Robert S, Egerman MD, Baha M, Sibai MD (1999) Hellp syndrome; Clin Obst et Gynecol 42: 381-389. Link: https://bit.ly/2YeQK0D

21. BenLetaifa D, Ben Hamada S, Salem N, Ben Jazia K, Slama A, et al. (2000) Morbidité et mortalité materno-foetales associées auHellp syndrome: Ann Fr AnesthRéanim 19 : 712-718. Link: https://bit.ly/3f3HWAU

Citation: Zelmat SA, Belhachemie N, Kerbouia DBK, Boucherit E, Mazour F (2020) HELLP syndrome, A real general disease that threatens the maternal morbidity and mortality at the EHU in Oran. J Cardiovasc Med Cardiol 7(2): 094-097. DOI: https://dx.doi.org/10.17352/2455-2976.000120