LES DOULEURS

- Douleurs polymorphes :
  - • Nociceptives/Neuropathiques/Hyperalgésie généralisée
  - • Articulaires et périarticulaires
  - • Rachidiennes •
  - Posturales
  - • Abdominales, pelviennes, céphalées (3 fois plus fréquentes)
- consultation d'algologie systématiquement indiquée si douleurs (articulaires, para-articulaires, abdominales).
- relaxation, hypnose..
- Antalgiques de Paliers I, II, III,
- TENS
- Réévaluation régulière

D'après Karelle BENISTAN, CR Garches

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WILEY American Journal of Medical Genetics A

RESEARCH ARTICLE

Use of prescription opioid and other drugs among a cohort of persons with Ehlers–Danlos syndrome: A retrospective study

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Against the backdrop of increased opioid prescribing in the United States and the associated high rate of side effects, dependence, and addiction, our study examined how opioids and other medications are being used among persons with Ehlers–Danlos syndrome (EDS). EDS is a set of heritable connective tissue disorders with high symptom burden, including chronic pain. Prescription medication use among persons with EDS was compared to a cohort of matched controls using 10 years of administrative claims data from a large database of privately insured patients (2005–2014). Our dataset included 4,294 persons with EDS, ages 5–62 years old. In both adults and children, we found that the percentage of persons with a prescription drug claim was higher in the EDS cohort for all prescription drug classes examined. Among children, opioid use was double in the EDS cohort compared to the control group (27.5% vs. 13.5%); in adults, it was nearly double in EDS patients (62% vs. 34.1%). Among persons who were prescribed opioids, those with EDS had higher cumulative dosages over a 2-year time period versus controls. Our study aids in understanding opioid and prescription drug use patterns in a vulnerable population with high symptom burden and chronic pain that is often severe.

KEYWORDS
chronic pain, Ehlers–Danlos syndrome, opioid

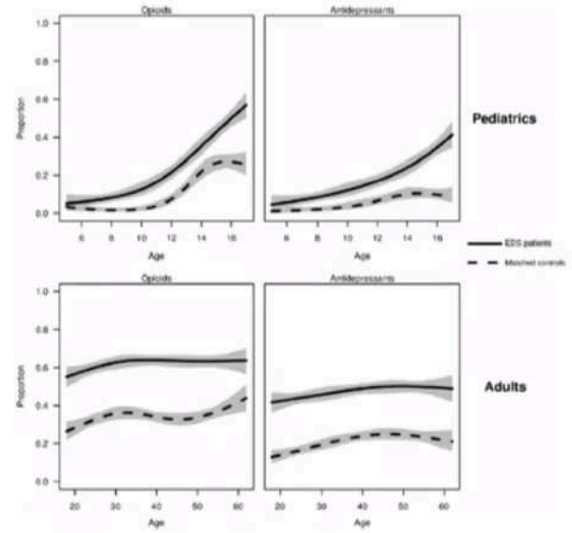
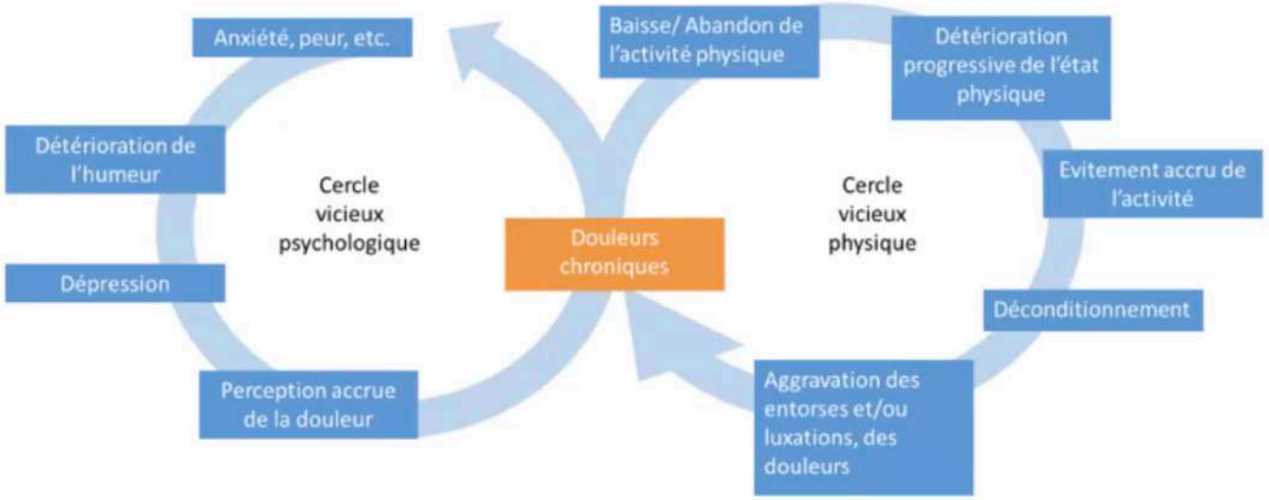


FIGURE 1 Trends in opioids and antidepressants by age for pediatric and adult patients. Proportions of EDS patients (solid lines) and matched controls (dashed lines) with a prescription drug claim for opioid (left column) and antidepressant (right column) as a function of age. The top row shows pediatric patients, and the bottom row shows adult patients. Estimates are from logistic regression models. Gray regions indicate 95% confidence intervals

TABLE 1 Generic names used to define each drug class

Drug class	Generic name
Opioids	Butorphanol, Dihydrocodeine, Fentanyl, Hydrocodone, Hydromorphone, Levorphanol, Meperidine, Methadone, Morphine, Nalbuphine, Oxycodone, Oxymorphone, Pentazocine, Tapentadol, Tramadol
Non-opioid analgesic (NSAID)	Celecoxib, Diclofenac, Diflunisal, Etodolac, Fenoprofen, Flurbiprofen, Indomethacin, Ketoprofen, Meclofenamate, Mefenamic acid, Meloxicam, Nabumetone, Oxaprozin, Piroxicam, Salsalate, Sulindac, Tolmetin
Muscle relaxants	Baclofen, Carisoprodol, Chlorzoxazone, Cyclobenzaprine, Metaxalone, Methocarbamol, Orphenadrine, Tizanidine
Antidepressant	
SSRI	Citalopram, Escitalopram, Fluoxetine, Fluvoxamine, Nefazodone, Paroxetine, Sertraline, Trazodone, Vilazodone, Vortioxetine
SNRI	Desvenlafaxine, Duloxetine, Levomilnacipran, Milnacipran, Venlafaxine, Isocarboxazid
MAOI	Phenelzine, Selegiline, Tranylcypromine
TCA	Amitriptyline, Amoxapine, Clomipramine, Desipramine, Doxepin, Imipramine, Maprotiline, Nortriptyline, Protriptuyline, Trimipramine
Other antidepressant	Bupropion, Mirtazapine
Benzodiazepine	Alprazolam, Chlordiazepoxide, Clonazepam, Clorazepate, Diazepam, Estazolam, Flurazepam, Lorazepam, Midazolam, Oxazepam, Quazepam, Temazepam, Triazolam
Other	Almotriptan, Buspirone, Butalbital, Eletriptan, Eszopiclone, Frovatriptan, Meprobamate, Naratriptan, Ramelton, Rizatriptan, Sumatriptan, Suvorexant, Zaleplon, Zolmatriptan, Zolpidem

LES LUXATIONS ET L'INSTABILITÉ ARTICULAIRE



Exemples d'activités physiques recommandées, à adapter en fonction de vos limitations fonctionnelles :

- ❑ Marche en terrain stable
- ❑ Natation
- ❑ Vélo d'appartement
- ❑ Stretching doux
- ❑ Qi gong
- ❑ Pilate
- ❑ Yoga
- ❑ D'autres activités, si elles sont adaptées, sont possibles en fonction des possibilités et disponibilités de chacun

- Maintenir le plus possible une activité physique douce, ne pas sédentariser (cercle vicieux du déconditionnement à l'effort)
- renforcement musculaire, kinésithérapie
- éviction des sports traumatisants, éviter les sports de compétition
- éviter les interventions orthopédiques +++ (butée pour l'épaule..) qui peuvent aggraver semelles, attelles, contention,
- éviter de « jouer » avec les articulations instables

13. Annexe 4. Exemple d'ordonnance de kinésithérapie

La kinésithérapie a un effet proprioceptif et un effet antalgique. Il est recommandé de suivre le programme suivant :

- *Massages* (39)
- *Travail postural*
- *Renforcement musculaire en isométrique au niveau des muscles stabilisateurs des articulations proximales de la course interne à (progressivement) la course externe musculaire, sans dépasser la fin de la course moyenne, pour gagner petit à petit en secteur angulaire. Le travail concentrique peut ensuite être initié très progressivement en évitant le travail excentrique.*
- *Application de chaleur avant les exercices, massage musculaire en fin de séance.*
- *Rééducation proprioceptive : prudente (pour éviter les chutes), avec résistances manuelles.*
- *Réadaptation très progressive à l'effort, endurance en aérobie, pour lutter contre la fatigue musculaire en évitant tous les mouvements balistiques rapides.*
- *Balnéothérapie en eau chaude : Les exercices à base d'eau sont souvent un bon choix pour certaines personnes, car l'eau réduit le poids corporel effectif et protège contre les chocs* (2).
- *Mise en place d'un auto-programme d'exercices à réaliser à domicile au long cours à adapter et moduler en fonction de la qualité de réalisation des exercices et des difficultés du patient : mise en place de programme d'éducation thérapeutique pour le patient.*
- *Apprentissage de la ventilation dirigée pour maitriser la dyspnée et les blocages respiratoires. Les patients disposent, pour la plupart, d'un appareil de TENS qui peut être utilisé durant les séances pour atténuer les douleurs et accroître la proprioception. Ils sont souvent équipés d'orthèses à visée proprioceptive : semelles, vêtements compressifs, ceinture lombaire, orthèses de genoux, chevillières, ... qui peuvent être conservés durant les séances d'exercices* (38,203). *Les mouvements répétés et les contraintes importantes (soulèvement de poids, par exemple) accentuent les phénomènes douloureux et sont donc contre-indiqués. Les techniques classiques de rééducation qui ont fait leurs preuves dans les entorses peuvent être reprises et adaptées (en faisant toujours attention au déclenchement de douleurs et à l'instabilité de ces patients). Les manipulations sont contre-indiquées. En revanche, il peut être intéressant d'apprendre à un patient à réduire une luxation d'épaule ou de rotule.*

PALLIER LE HANDICAP

- Adaptations scolaires/professionnelles si difficultés d'écriture, psychomotricien, ergothérapeute..

- conserver une vie sociale +++

- ALD si SED, pas si HSD

- Dossier MDPH

- Orientation vers une assistante sociale

2/ Suivi cardiovasculaire orienté :
Echographie cardiaque et des gros vaisseaux ❤️

Genetics inMedicine | SYSTEMATIC REVIEW

Official journal of the American College of Medical Genetics and Genomics

Open

Vascular phenotypes in nonvascular subtypes of the Ehlers-Danlos syndrome: a systematic review

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Purpose: Within the spectrum of the Ehlers-Danlos syndromes (EDS), vascular complications are usually associated with the vascular subtype of EDS. Vascular complications are also observed in other EDS subtypes, but the reports are anecdotal and the information is dispersed. To better document the nature of vascular complications among "nonvascular" EDS subtypes, we performed a systematic review.

Methods: We queried three databases for English-language studies from inception until May 2017, documenting both phenotypes and genotypes of patients with nonvascular EDS subtypes. The outcome included the number and nature of vascular complications.

Results: A total of 112 papers were included and data were collected from 467 patients, of whom 77 presented with a vascular phenotype. Severe complications included mainly hematomas (53%), frequently reported in musculocontractural and classical-like EDS; intracranial hemorrhages (18%), with a high risk in dermatosparaxis EDS; and arterial dissections (16%), frequently reported in kyphoscoliotic and classical EDS. Other, more minor, vascular complications were reported in cardiac-valvular, arthrochalasia, spondylodysplastic, and periodontal EDS.

Conclusion: Potentially life-threatening vascular complications are a rare but important finding in several nonvascular EDS subtypes, highlighting a need for more systematic documentation. This review will help familiarize clinicians with the spectrum of vascular complications in EDS and guide follow-up and management.

Genet Med advance online publication 5 October 2017

Key Words: connective tissue disorder; Ehlers-Danlos syndrome; nonvascular subtype; systematic review; vascular complication

Table 3 Vascular complications in nonvascular subtypes of the Ehlers-Danlos syndrome

EDS subtype	Affected	Multiple	Average/ patient (range)	Hematoma	Intracranial hemorrhage	Arterial dissection	Arterial aneurysm	GI bleeding	Perioperative hemorrhage	Sporadic complication	Total
cEDS (*COL5A1/2*)	12/110 (11%)	1/110 (1%)	1.25 (1–4)	3	1	6	3	1	–	1	15
cEDS (*COL1A1*)	3/12 (25%)	–	1.00 (1–1)	–	–	2	1	–	–	–	3
clEDS (*TNXB*)	10/19 (53%)	–	1.00 (1–1)	10	–	–	–	–	–	–	10
cvEDS (*COL1A2*)	2/5 (40%)	–	1.00 (1–1)	–	–	1	–	–	1	–	2
aEDS (*COL1A1/2*)	1/17 (6%)	–	1.00 (1–1)	–	–	–	–	–	1	–	1
dEDS (*ADAMTS2*)	5/15 (33%)	2/15 (13%)	1.57 (1–2)	2	4	–	–	–	–	1	7
kEDS (*PLOD1*)	8/54 (15%)	1/54 (2%)	1.22 (1–3)	–	4	5	1	–	–	–	10
kEDS (*FKBP14*)	2/10 (20%)	–	1.00 (1–1)	–	–	2	–	–	–	–	2
spEDS (*B3GALT6*)	1/25 (4%)	–	1.00 (1–1)	–	1	–	–	–	–	–	1
spEDS (*SLC39A13*)	1/8 (13%)	1/8 (13%)	2.00 (2–2)	–	1	–	–	–	–	–	1
mcEDS (*CHST14*)	27/43 (63%)	8/43 (19%)	1.68 (1–6)	36	4	–	–	–	2	–	42
mcEDS (*DSE*)	2/3 (67%)	–	1.00 (1–1)	2	–	–	–	–	–	–	2
pEDS (*C1R/S*)	3/55 (6%)	1/55 (2%)	1.25 (1–2)	–	3	–	–	–	1	–	4
Total	77	14	1.30	53	18	16	5	1	5	2	100

EDS, Ehlers-Danlos syndrome (for the definitions of the various subtypes of EDS, see Table 1); GI, gastrointestinal.

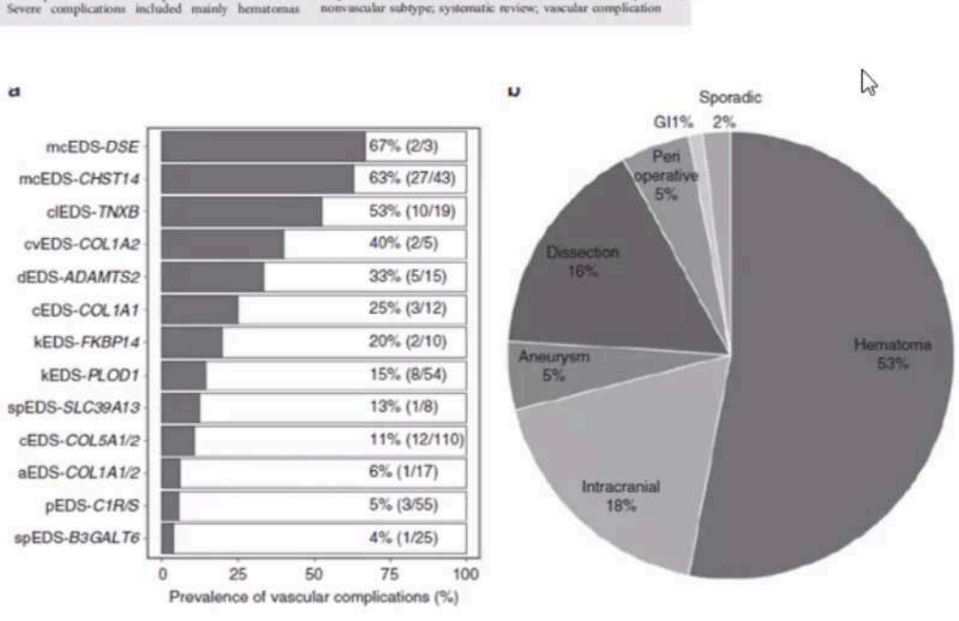

Figure 2 Vascular complications in nonvascular EDS. (**a**) The number of patients with vascular complications is presented for each nonvascular EDS subtype in terms of percentage. The ratios relate to the total number of patients with vascular complication(s), to the total number per subtype. (**b**) The number of each type of complication is presented in terms of percentage. EDS, Ehlers-Danlos syndrome (for the definitions of the various subtypes of EDS, see Table 1); GI, gastrointestinal.

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ORIGINAL ARTICLE

WILEY medical genetics

Natural history of aortic root dilation through young adulthood in a hypermobile Ehlers–Danlos syndrome cohort

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Hypermobile Ehlers–Danlos syndrome (hEDS) is a common inherited connective tissue disorder characterized by joint hypermobility. The natural history of aortic root dilation (AoD), a potential complication of EDS, has not been well characterized in this population. We describe the natural history of aortic root size in a large cohort of patients with hEDS. A cohort of 325 patients with HEDS was identified at Cincinnati Children's Hospital Medical Center (CCHMC), including 163 patients from a previous study. Medical records were reviewed and each participant's height, weight, and aortic dimensions from up to four echocardiograms were documented. Aortic root *z*-scores were calculated using two established formulas based on age (Boston or Devereux). Overall prevalence of AoD and prevalence by age were calculated and longitudinal regression was performed. The prevalence of AoD with a *z*-score ≥ 2.0 was 14.2% (46/325) and with a *z*-score of ≥3.0 was 5.5% (18/325). No significant increases in *z*-score were seen over time for patients with multiple echocardiograms. Participants under the age of 15 years had an average decline of 0.1 standard deviations (SDs)/year. No significant change was found after 15 of age. Between the ages of 15 and 21 years, Boston *z*-scores were 0.96 higher than Devereux *z*-scores. The nearly 1*z*-score unit difference between formulas indicates caution prior to diagnosing AoD in patients with hEDS. In light of the low prevalence and lack of progression of AoD, routine echocardiograms may not be warranted for pediatric patients with hEDS.

KEYWORDS
ascending aorta, echocardiography, Ehlers-Danlos syndrome, genetics, hypermobility type

3/ Avis spécialisés orientés en fonction des types d'EDS

- Atteinte osseuse avec ostéopénie, risque fracturaire, scoliose…

⇒ ostéodensitométrie, rhumatologue, orthopédiste

- Dermatologue, chirurgien plasticien
- Ophtalmologiste
- ORL
- Dentiste, stomatologue, orthodontiste
- Gastro-entérologue
- Pneumologue
- gynécologue

Le diagnostic moléculaire permet d'orienter l'examen clinique et la prise en charge

- Informer l'ensemble des médecins prenant en charge le patient sur les spécificités et les risques +++ inhérents à la pathologie. Cartes d'urgences, PNDS
- Coordonner la prise en charge

CONCLUSION : L'HYPERLAXITÉ

- Un symptôme fréquent… des maladies rares
- Des scores diagnostiques utiles
- Tout patient hyperlaxe n'a pas un syndrome d'Ehlers Danlos hypermobile (SEDh) mais tout patient ayant un SEDh est hyperlaxe
- Tout patient suspect de fibromyalgie ne doit pas être suspect de SEDh
- Examen général, extra-articulaire, indispensable
- Prendre en charge les symptômes => cs d'algologie, MPR, kinésithérapie, réadaptation à l'effort
- SED => prise en charge multidisciplinaire spécifique
- Ne pas méconnaître un diagnostic différentiel