



Improved fibrosis staging by elastometry and blood test in chronic hepatitis C.

Submitted by Paul Calès on Wed, 10/01/2014 - 18:30

Titre Improved fibrosis staging by elastometry and blood test in chronic hepatitis C.

Type de publication Article de revue

Auteur Calès, Paul [1], Boursier, Jérôme [2], Ducancelle, Alexandra [3], Oberti, Frédéric [4], Fouchard-Hubert, Isabelle [5], Hunault, Gilles [6], de Ledinghen, Victor [7], Zarski, Jean-Pierre [8], Salmon-Céron, Dominique [9], Lunel-Fabiani, Françoise [10], ANRS HC EP 23 Fibrostar Study Group [11]

Editeur Wiley

Type Article scientifique dans une revue à comité de lecture

Année 2014

Langue Anglais

Date 2014 Jul

Pagination 907-17

Volume 34

Titre de la revue Liver International

ISSN 1478-3231

Mots-clés Adult [12], Biological Markers [13], Biopsy [14], Chronic [15], Elasticity Imaging Techniques [16], Female [17], Hepatitis C [18], Humans [19], Liver [20], Liver Cirrhosis [21], Male [22], Middle Aged [23], Predictive Value of Tests [24], Prospective Studies [25], Reproducibility of Results [26], Severity of Illness Index [27]

AIMS: Our main objective was to improve non-invasive fibrosis staging accuracy by resolving the limits of previous methods via new test combinations. Our secondary objectives were to improve staging precision, by developing a detailed fibrosis classification, and reliability (personalized accuracy) determination.

METHODS: All patients (729) included in the derivation population had chronic hepatitis C, liver biopsy, 6 blood tests and Fibroscan. Validation populations included 1584 patients.

RESULTS: The most accurate combination was provided by using most markers of FibroMeter and Fibroscan results targeted for significant fibrosis, i.e. 'E-FibroMeter'. Its classification accuracy (91.7%) and precision (assessed by F difference with Metavir: 0.62 ± 0.57) were better than those of FibroMeter (84.1%, $P < 0.001$; 0.72 ± 0.57 , $P < 0.001$), Fibroscan (88.2%, $P = 0.011$; 0.68 ± 0.57 , $P = 0.020$), and a previous CSF-SF classification of FibroMeter + Fibroscan (86.7%, $P < 0.001$; 0.65 ± 0.57 , $P = 0.044$). The accuracy for fibrosis absence (F0) was increased, e.g. from 16.0% with Fibroscan to 75.0% with E-FibroMeter ($P < 0.001$). Cirrhosis sensitivity was improved, e.g. E-FibroMeter: 92.7% vs. Fibroscan: 83.3%, $P = 0.004$. The combination improved reliability by deleting unreliable results (accuracy $< 50\%$) observed with a single test (1.2% of patients) and increasing optimal reliability (accuracy $\geq 85\%$) from 80.4% of patients with Fibroscan (accuracy: 90.9%) to 94.2% of patients with E-FibroMeter (accuracy: 92.9%), $P < 0.001$. The patient rate with 100% predictive values for cirrhosis by the best combination was twice (36.2%) that of the best single test (FibroMeter: 16.2%, $P < 0.001$).

CONCLUSION: The new test combination increased: accuracy, globally and especially in patients without fibrosis, staging precision, cirrhosis prediction, and even reliability, thus offering improved fibrosis staging.

Résumé en anglais

URL de la notice <http://okina.univ-angers.fr/publications/ua4216> [28]
DOI [10.1111/liv.12327](https://doi.org/10.1111/liv.12327) [29]
Autre titre Liver Int.
Identifiant (ID) PubMed 24102852 [30]

Liens

- [1] <http://okina.univ-angers.fr/p.cales/publications>
- [2] <http://okina.univ-angers.fr/jerome.boursier/publications>
- [3] <http://okina.univ-angers.fr/a.ducancelle/publications>
- [4] <http://okina.univ-angers.fr/f.oberti/publications>
- [5] [http://okina.univ-angers.fr/publications?f\[author\]=21979](http://okina.univ-angers.fr/publications?f[author]=21979)
- [6] <http://okina.univ-angers.fr/gilles.hunault/publications>
- [7] [http://okina.univ-angers.fr/publications?f\[author\]=5014](http://okina.univ-angers.fr/publications?f[author]=5014)
- [8] [http://okina.univ-angers.fr/publications?f\[author\]=4993](http://okina.univ-angers.fr/publications?f[author]=4993)
- [9] [http://okina.univ-angers.fr/publications?f\[author\]=5101](http://okina.univ-angers.fr/publications?f[author]=5101)
- [10] <http://okina.univ-angers.fr/f.lunel/publications>
- [11] [http://okina.univ-angers.fr/publications?f\[author\]=6189](http://okina.univ-angers.fr/publications?f[author]=6189)
- [12] [http://okina.univ-angers.fr/publications?f\[keyword\]=1002](http://okina.univ-angers.fr/publications?f[keyword]=1002)
- [13] [http://okina.univ-angers.fr/publications?f\[keyword\]=6065](http://okina.univ-angers.fr/publications?f[keyword]=6065)
- [14] [http://okina.univ-angers.fr/publications?f\[keyword\]=8328](http://okina.univ-angers.fr/publications?f[keyword]=8328)
- [15] [http://okina.univ-angers.fr/publications?f\[keyword\]=3019](http://okina.univ-angers.fr/publications?f[keyword]=3019)
- [16] [http://okina.univ-angers.fr/publications?f\[keyword\]=7613](http://okina.univ-angers.fr/publications?f[keyword]=7613)
- [17] [http://okina.univ-angers.fr/publications?f\[keyword\]=1075](http://okina.univ-angers.fr/publications?f[keyword]=1075)

- [18] [http://okina.univ-angers.fr/publications?f\[keyword\]=7537](http://okina.univ-angers.fr/publications?f[keyword]=7537)
- [19] [http://okina.univ-angers.fr/publications?f\[keyword\]=991](http://okina.univ-angers.fr/publications?f[keyword]=991)
- [20] [http://okina.univ-angers.fr/publications?f\[keyword\]=1235](http://okina.univ-angers.fr/publications?f[keyword]=1235)
- [21] [http://okina.univ-angers.fr/publications?f\[keyword\]=5940](http://okina.univ-angers.fr/publications?f[keyword]=5940)
- [22] [http://okina.univ-angers.fr/publications?f\[keyword\]=968](http://okina.univ-angers.fr/publications?f[keyword]=968)
- [23] [http://okina.univ-angers.fr/publications?f\[keyword\]=5941](http://okina.univ-angers.fr/publications?f[keyword]=5941)
- [24] [http://okina.univ-angers.fr/publications?f\[keyword\]=7543](http://okina.univ-angers.fr/publications?f[keyword]=7543)
- [25] [http://okina.univ-angers.fr/publications?f\[keyword\]=6044](http://okina.univ-angers.fr/publications?f[keyword]=6044)
- [26] [http://okina.univ-angers.fr/publications?f\[keyword\]=6705](http://okina.univ-angers.fr/publications?f[keyword]=6705)
- [27] [http://okina.univ-angers.fr/publications?f\[keyword\]=6085](http://okina.univ-angers.fr/publications?f[keyword]=6085)
- [28] <http://okina.univ-angers.fr/publications/ua4216>
- [29] <http://dx.doi.org/10.1111/liv.12327>
- [30] <http://www.ncbi.nlm.nih.gov/pubmed/24102852?dopt=Abstract>

Publié sur *Okina* (<http://okina.univ-angers.fr>)