Physician connect
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Dear Doctor,
Greetings from Micro Labs Limited. We are happy to bring you "Physician connect" which contains latest and interesting news in the field of Medicine.

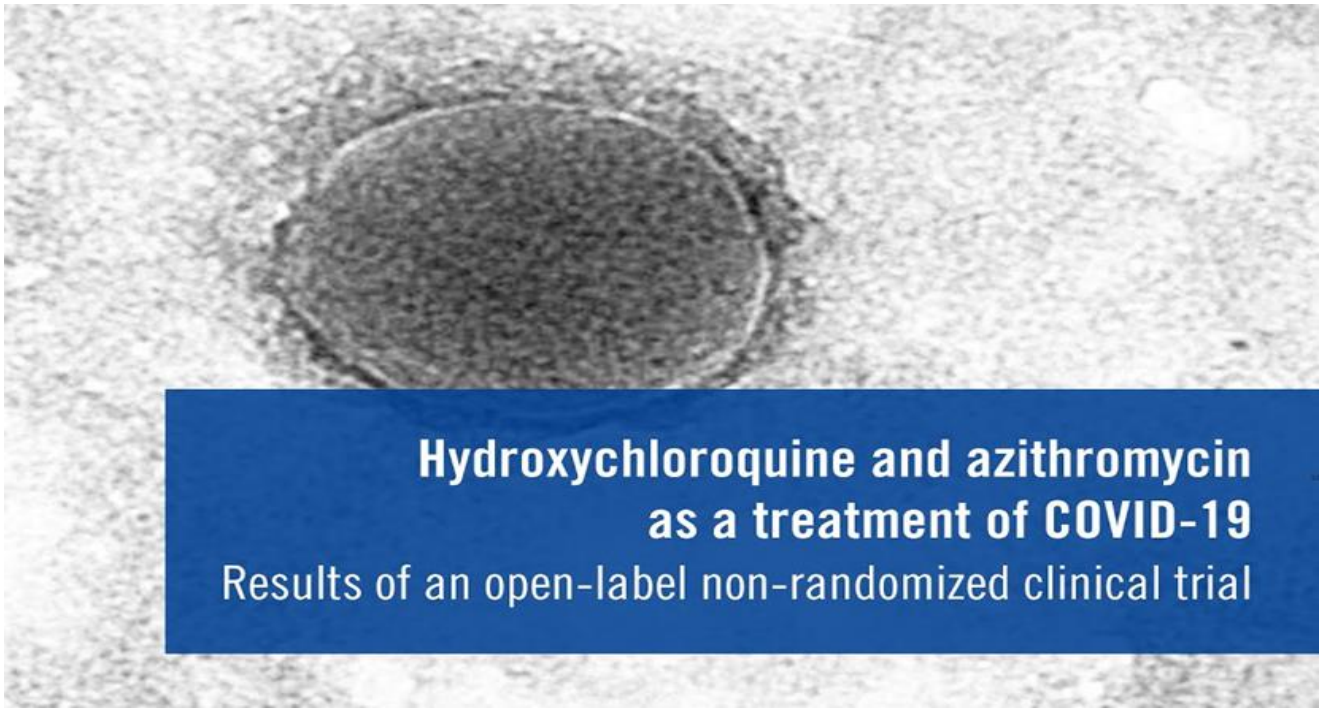
This issue contains

- Hydroxychloroquine and azithromycin as a treatment of COVID-19: results of an open label non-randomized clinical trial
- Relationship between Blood Pressure and Hypoalgesia
- Blood pressure variability and risk of stroke in chronic kidney disease

Should you require any specific article or medical information, please feel free to contact us at medicalservices@microlabs.in

Looking forward to your valuable feedback

Best Regards,
Medical Team, Micro Labs Limited



Hydroxy-chloroquine is found to be effective against coronavirus in laboratory studies and in-vivo studies. Its use is derived from the available evidence of benefit as treatment and supported by pre-clinical data. Based on the initial reports from the Chinese Medical fraternity, the pilot study was conducted in France. Aix-Marseille University in France, released results of a preliminary trial involving a total of 36 *COVID-19 patients.*

Gautret et al. conduct a clinical trial aiming at assessing the effect of hydroxychloroquine on SARS-CoV-2-infected patients after approval by the French Ministry of Health. This report describes the early results, focusing on virological data in patients receiving hydroxychloroquine as compared to a control group.

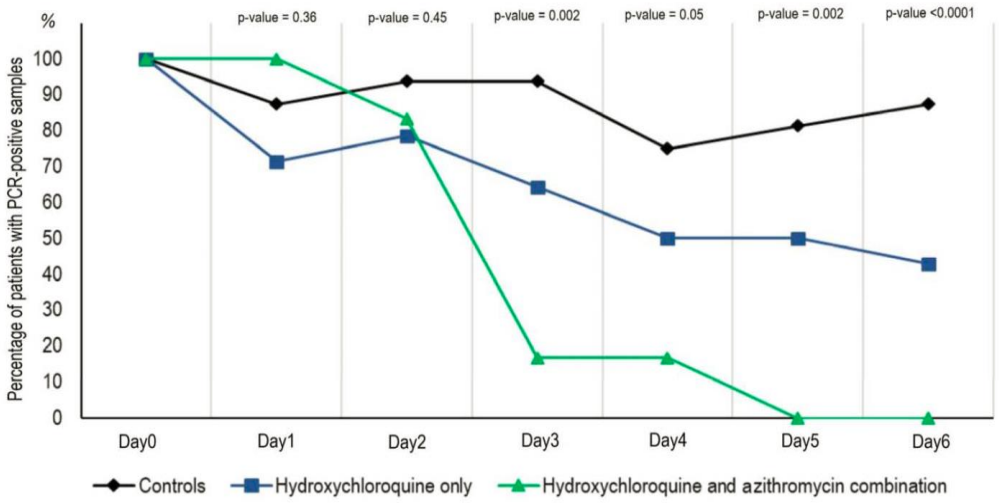
This ongoing study is coordinated by The Méditerranée Infection University Hospital Institute in Marseille. Patients who were proposed a treatment with hydroxychloroquine were recruited and managed in Marseille centre. Controls without hydroxychloroquine treatment were recruited in Marseille, Nice, Avignon and Briançon centers, all located in South France.

Hydroxychloroquine treatment is significantly associated with viral load reduction/disappearance in COVID-19 patients

Hospitalized patients with confirmed COVID-19 were included in this study if they fulfilled two primary criteria: i) age >12 years; ii) PCR documented SARS-CoV-2 carriage in nasopharyngeal sample at admission whatever their clinical status.

Patients were excluded if they had a known allergy to hydroxychloroquine or chloroquine or had another known contraindication to treatment with the study drug, including retinopathy, G6PD deficiency and QT prolongation. Breastfeeding and pregnant patients were excluded. Patients were seen at baseline for enrolment, initial data collection and treatment at day-0, and again for daily follow-up during 14 days. Each day, patients received a standardized clinical examination and when possible, a nasopharyngeal sample was collected. All clinical data were collected using standardized questionnaires. All patients in Marseille centre were proposed oral hydroxychloroquine sulfate 200 mg, three times per day during ten days. The primary endpoint was virological clearance at day-6 post-inclusion. Secondary outcomes were virological clearance overtime during the study period, clinical follow-up (body temperature, respiratory rate, long of stay at hospital and mortality), and occurrence of side effects.

At day 6 post-inclusion, 70% of hydroxychloroquine-treated patients were virologicaly cured comparing with 12.5% in the control group (p= 0.001). Furthermore, at day6 post-inclusion, 100% of patients treated with hydroxychloroquine and azithromycin combination were virologicaly cured comparing with 57.1% in patients treated with hydroxychloroquine only, and 12.5% in the control group (p<0.001).



Source: Gautret P et al. Int J Antimicrob Agents. 2020;105949. [Online ahead of print]

Relationship between Blood Pressure and Hypoalgesia

Spontaneous or experimentally induced high blood pressure (BP) is associated with reduced pain perception, known as BP-related hypoalgesia. Despite its clinical implications, such as the interference with early detection of myocardial infarction in 'at risk' groups, the size of the association between high BP and pain has not yet been quantified. Moreover, the distinct association between high BP and physiological or psychological components of pain has not yet been considered so far. The aim of this study was to overcome this gap by performing separate meta-analyses on nociceptive response versus quantifiable perceptual measures of pain in relation to high BP.

Current meta-analytic results confirm the presence of BP-related hypoalgesia and point towards the need for a better understanding of its underlying mechanisms.

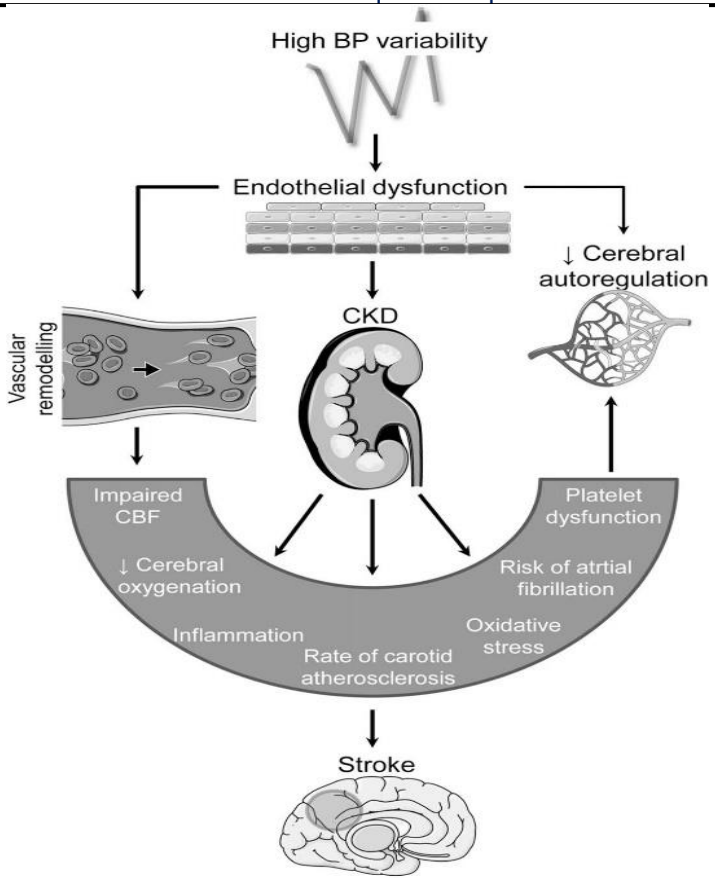
Fifty-nine studies were included for the analyses. Pooled effect sizes (Hedges' g) were compared. Random effect models were used. Results show that higher BP is significantly associated with lower nociceptive response (g = 0.38; k = 6) and reduced pain perception, assessed by quantifiable measures (g = 0.48; k = 59). The association between BP and pain perception, derived from highly heterogeneous studies, was characterized by significant publication bias. BP assessment, pain assessment, site of pain stimulation, percentage of female participants in the sample, and control for potential confounders were significant moderators. Current meta-analytic results confirm the presence of BP-related hypoalgesia and point towards the need for a better understanding of its underlying mechanisms.

Elena M et al. J Hyperten. 2020 Mar. [Online ahead of print] doi: 10.1097/HJH.0000000000002427

Blood pressure variability and risk of stroke in chronic kidney disease

Chronic kidney disease (CKD), is a significant health problem with an estimated worldwide prevalence of approximately 10%. Cardiovascular disease is the leading cause of death in patients with CKD.

In the last few years, much focus has been given to the high rate of cardiac complications in CKD patients; nonetheless, more attention should be given to the debilitating burden of cerebrovascular disease among CKD patients. The risk of stroke in CKD has been reported to be significantly greater than that in the general population and a graded and independent relationship between eGFR and stroke risk has been clearly reported in several studies.



Among modifiable risk factors for cerebrovascular accidents in CKD, hypertension is the major contributor for both ischemic and hemorrhagic stroke with risk increasing with worsening blood pressure (BP) control. In this context, current guidelines recommend multiple readings before making a diagnosis of hypertension as well as before initiation and titration of BP-lowering drugs. Thus, BP variability recorded over multiple time-frames adds to the complexity in managing hypertension. This is further complicated by the evidence that elevated long-term (visit-to-visit) BP variability may be associated with adverse outcomes in CKD. Higher visit-to-visit BP variability in patients with CKD has been associated with mortality and incident cardiovascular events.

In conclusion, as stroke is a leading cause of mortality and morbidity worldwide, and BP control may reduce subsequent cerebrovascular disease in patients with CKD. The biological mechanisms underlying the association between BP variability, CKD and stroke need to be more clearly determined (Fig. 1). It is important to identify the CKD patients at increased risk of stroke and treat them more intensively.

Angeli F, J Hypertens, Apr 2020;38 (4): 599-602

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