Original Investigation

Alteplase for Acute Ischemic Stroke at 4.5 to 24 Hours

The HOPE Randomized Clinical Trial

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Author Affiliations

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Conclusions and Relevance In patients with acute ischemic stroke with salvageable brain tissue identified by perfusion imaging who did not initially receive thrombectomy, intravenous alteplase administered 4.5 to 24 hours after onset provided functional benefit, despite an increase in symptomatic intracranial hemorrhage.

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Will Morton

Aug 7 2025

reported.

The finding is from a study that considered the costs of an opportunistic screening strategy with a deep-learning model and existing chest x-rays and highlights the potential of AI to improve early detection, noted lead author Mickael Hiligsmann, PhD, of Maastricht University in the Netherlands, and colleagues.

Using AI to analyze chest x-rays could be a cost-effective way to screen for osteoporosis in U.S. women ages 50 and over, researchers have reported.

The finding is from a study that considered the costs of an opportunistic screening strategy with a deep-learning model and existing chest x-rays and highlights the potential of AI to improve early detection, noted lead author Mickael Hiligsmann, PhD, of Maastricht University in the Netherlands, and colleagues.

Cost-effectiveness of opportunistic osteoporosis screening using chest radiographs with deep learning in the United States

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ORIGINAL RESEARCH

Clinical Outcomes of AFP-Negative Patients with Advanced HCC: A Propensity-Matched Analysis from a Retrospective Cohort Study

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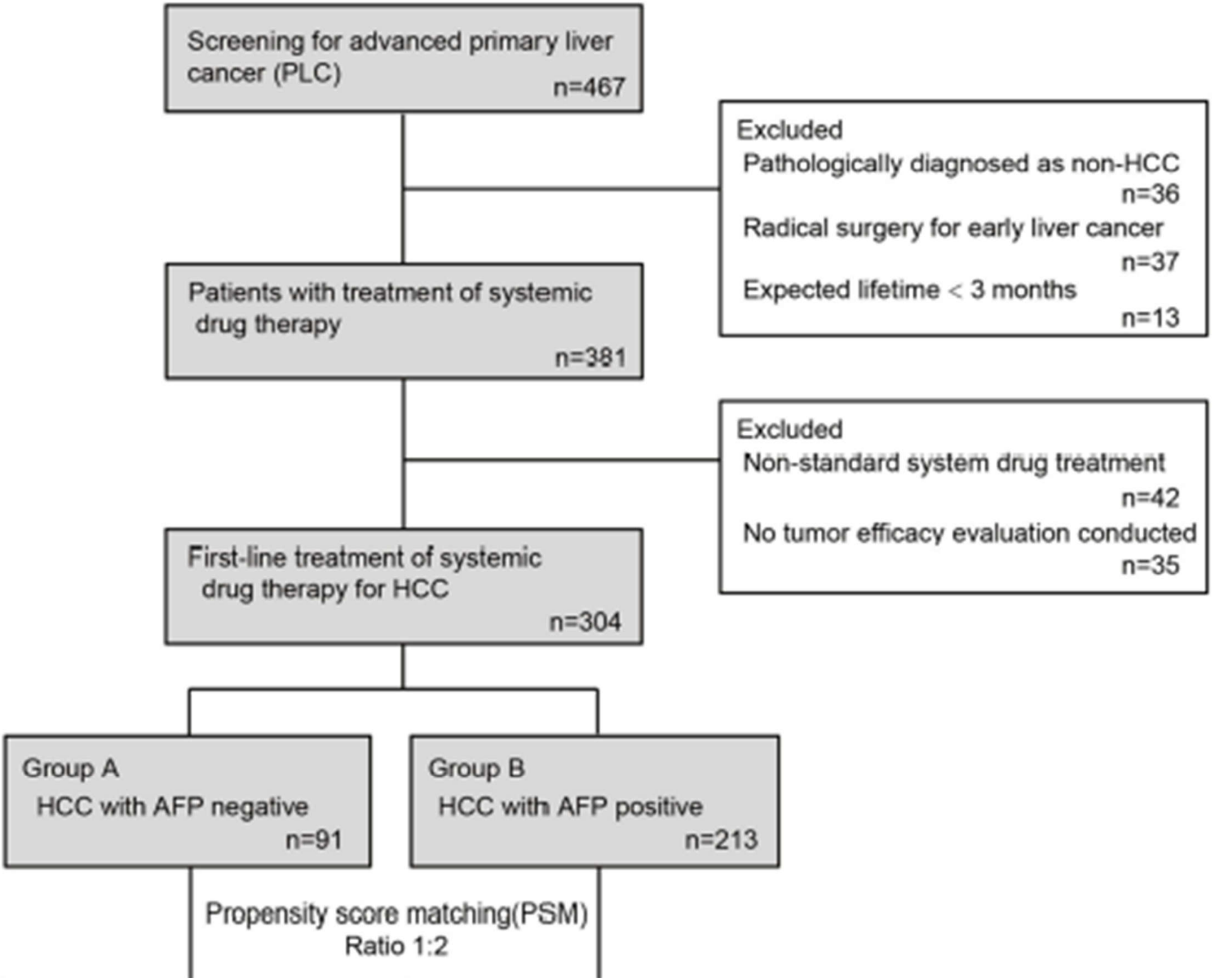
Introduction: AFP positivity (≥20 ng/mL) is often used as one of the diagnostic criteria for HCC. The aim of this study is to analyze the prognosis of advanced HCC with negative (<20 ng/mL) AFP at baseline following systemic drug treatment.

Methods: In this study, 91 patients with AFP-negative advanced HCC who received systemic drug treatment in Nanjing Jinling Hospital from February 2011 to September 2023 were collected, and 213 patients with AFP-positive advanced HCC were collected as the control group. A propensity score model was used to adjust for potential confounding variables. Cox regression analysis was used to clarify the differences of prognosis in subgroups for HCC patients.

Results: Following propensity score matching with 1:2 ratio, 90 HCC patients from Group A (AFP-negative) and 180 from Group B (AFP-positive) were chosen to participate in the final analysis set. The OS of AFP-negative HCC patients was extended by 13.5 months compared to AFP-positive HCC patients. Within the AFP-negative HCC group, the top-ranked first-line treatment options were TKIs combo ICIs (mPFS = 9.5m, mOS = 37.1m), chemotherapy combo ICIs (mPFS = 8.1m, mOS = 15.5m), and TKIs (mPFS = 5.6m, mOS = 28.2m). Subgroup analysis indicated that among AFP-negative HCC patients, those without PVTT or with HBV DNA <50IU/mL had longer survival time. For HCC patients who opted for TKIs combo ICIs as their first-line treatment and then switched to TKIs alone for second-line treatment, the mOS and 95% CI were 30.7 (24.8-NA) months.

Conclusion: The survival time of AFP-negative HCC patients was significantly longer than that of AFP positive HCC patients. Patients with no PVTT or HBV DNA <50IU/mL have relatively better efficacy of systemic drug therapy. With the AFP-negative HCC patients, TKIs combo ICIs are preferentially recommended for the first-line therapy, and TKIs are used for the second-line therapy after progression.

Keywords: hepatocellular carcinoma, alpha-fetoprotein, systemic anti-tumor therapy, immune checkpoint inhibitors, multi-line therapy


Screening for advanced primary liver cancer (PLC)
n=467
Excluded
Pathologically diagnosed as non-HCC
n=36
Radical surgery for early liver cancer
n=37
Expected lifetime < 3 months
n=13
Patients with treatment of systemic drug therapy
n=381
Excluded
Non-standard system drug treatment
n=42
No tumor efficacy evaluation conducted
n=35
First-line treatment of systemic drug therapy for HCC
n=304
Group A
HCC with AFP negative
n=91
Group B
HCC with AFP positive
n=213
Propensity score matching(PSM)
Ratio 1:2

Conclusion

The survival time of AFP-negative HCC patients is significantly longer than that of AFP-positive HCC patients. Patients with no PVTT or HBV DNA <50lU/mL have longer OS than the control group. Among AFP-negative HCC patients, TKIs combo ICIs are preferentially recommended for the first-line therapy, and TKIs are recommended for the second-line therapy after progression, which has significantly benefit for survival.

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Combining AFP, PIVKA-II, and GP73 has diagnostic utility for hepatitis B-associated hepatocellular carcinoma and is consistent with liver pathology results

Although liquid biopsy has garnered increasing attention in recent years for diagnosing hepatocellular carcinoma (HCC), serum biomarkers continue to hold significant value for HCC diagnosis due to their simple operation, cost-effectiveness, and high efficiency. This study aimed to screen for the optimal diagnostic combinations of alpha fetoprotein (AFP), a protein induced by vitamin K deficiency or antagonist II (PIVKA-II), golgi glycoprotein 73 (GP73), and routine clinical indicators for diagnosing hepatitis B-associated HCC (HBV-HCC). A retrospective analysis was conducted on 358 HBV-HCC patients treated at Taizhou People's Hospital from August 2015 to October 2021; 124 patients with chronic hepatitis B (CHB) and 241 patients with hepatitis B cirrhosis composed the control group. With liver pathology as the gold standard, the concordance between the screened indicators and liver pathology for HCC diagnosis was analyzed by Cohen's kappa coefficient. In the CHB group, AFP, PIVKA-II, and GP73 were statistical significance, and the triple biomarker combination achieved the highest AUC (0.908) for HCC diagnosis, surpassing the efficacy of both individual indicators and two biomarker combinations. In both the Child–Pugh A and Child–Pugh B&C cirrhosis groups, AFP and PIVKA-II were significantly different between patients with and without HCC, and the AUC values of AFP combined with PIVKA-II for HCC diagnosis were 0.969 and 0.956, respectively. Using liver pathology as the gold standard, the Kappa values of the above combinations in the three groups were 0.866, 0.780, and 0.800, respectively. The triple combination of AFP, PIVKA-II, and GP73 in the CHB group and the combination of AFP and PIVKA-II in both the Child–Pugh A and Child–Pugh B&C cirrhosis groups had excellent diagnostic accuracy for HCC, consistent with liver pathology, and were superior to the diagnostic ability of individual biomarkers.

THE LANCET
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The menstrual cycle: a vital sign across the lifespan

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Affiliations & Notes Article Info

The menstrual cycle can provide valuable health information. However, concerns related to menstruation (eg, pain, heavy bleeding, and irregu menstrual cycles) are frequently overlooked by medical professionals. Many reasons exist for the underdiagnosis and neglect of menstrual disorders, but an important contributor is that menstrual cycle characteristics are not routinely assessed or documented in clinical practice. Although the menstrual cycle has been recognised as a vital sign in adolescence, this recognition has not been made for adults. In this Viewpo we argue that the menstrual cycle is an underused but powerful tool for understanding gynaecological and general health. The menstrual cyc functions as a vital sign across the lifespan, providing crucial information that can be used to guide and monitor clinical treatment and sympto management, and inform screening and preventive care. The menstrual cycle can also serve as a health indicator, and cycle characteristics ca predict chronic disease later in life. We outline the value of collecting menstrual cycle data in research across different disciplines. Documentin the menstrual cycle as a vital sign, in both clinical and research contexts, has the potential to profoundly improve patient wellbeing, clinical ca

Menstrual Cycles as a Fifth Vital Sign

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