INTERNET NEWS

BS HỒ CHÍ TRUNG

NEWS | INTERVENTIONAL

effective for knee osteoarthritis for up to 2 years

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ar artery embolization (GAE) for mild-to-moderate knee osteoarthritis can
ain for patients for up to two years, according to an article published May
ovascular and Interventional Radiology.

-up study of patients who underwent the minimally invasive procedure
ed that GAE represents a valuable alternative in managing mild-to-moderat
nritis patients, a group at University of Reading in the U.K. reported.

as particularly beneficial for patients who experience high pain catastroph
ne," noted lead author Mark Little, MD, and colleagues.

an emerging minimally invasive intervention for patients with painful knee
nritis who are refractory to other treatments or who are reluctant to undergo
e for knee replacement surgery. The procedure involves inserting
rticles to target genicular arteries that supply the synovial lining of the knee
icroparticles block blood flow, which reduces pain signals and provides re
ors explained.

ials have shown promising results, yet to date, psychometric variable
nsidered, and a solely pathophysiological assessment is often ineffect
ed.

end, the group studied outcomes in 40 patients up to two years after t
re based on their scores on the Visual Analogue Scale (VAS) and Pai
phizing Scale (PCS), two common tools for quantifying subjective p
nces.

ne 40 patients, 39 reported outcomes at six weeks, with one patient m
ed follow-up. Forty patients completed follow-up at three months, 37
ed completed follow-up at one year, and 28 patients at two years.

ng to the analysis, at six weeks, patients who had higher levels of "pa
phizing" (engaging in catastrophizing thoughts about pain) based on
t baseline experienced greater reductions in pain. Also, there was a si
n in VAS scores from 58.63 at baseline to 37.7 at two years, the grou
.

e two-year time point, 20 patients who had been using regular Paracet
tients who had been using NSAIDs for managing pain had significant
ases in usage, the researchers added.

E is a safe intervention for mild-moderate knee osteoarthritis, with sus
cy at two years. These results are promising and justify ongoing cont
" the group wrote.

ately, the study supports the use of GAE without the need for retreatm
ain symptomatic control, as well as provides evidence that GAE can
ve results well beyond the expected duration of the placebo effect, th
chers wrote.

ations of the study included the relatively small sample size and lack
imental control group, they noted.

re studies should investigate optimal embolic materials, longitudinal
es, biomarkers, and neuropsychological phenotypes in order to elucid
patient population for GAE," the group concluded.

AL NEWS | INTERVENTIONAL

CO: Thermal ablation comparable to surgery for liv tastases

Allegretto
024

colorectal cancer patients with small liver metastases with thermal ablatio
able to surgical resection, a study presented June 3 at the American Society
gy (ASCO) meeting found.

hermal ablation as the standard of care would benefit patients, presenter Ma
ak, MD, PhD, from Amsterdam University Medical Center in the Netherlan
ak shared results from the Colorectal Liver Metastases: Surgery vs. Therma
SION) trial.

ioning … to thermal ablation as standard of care for patients with small-siz
al liver metastases would reduce complications, shorten hospital stay, and i
ntrol without compromising disease-free and overall survival," he said.

growing evidence in favor of thermal ablation for treating cancer as oppos
standard of care, which is surgical resection. Previous research suggests tha
to a better safety profile, lower costs, and shorter hospital stays, while also
surgical resection in terms of local control and overall survival.

ak and co-authors explored the potential non-inferiority of thermal ablation
cal resection for patients with small-size resectable colorectal liver metastas

e III randomized-controlled clinical trial included data from 295 patients. C
e assigned to thermal ablation while the remaining 148 were assigned to sur
. The researchers noted that the trial was stopped at halftime for having me
ed stopping rules.

nedian follow-up time of 28.8 months, the results showed no significant dif
the two methods in terms of overall survival, including a hazard ratio (HR)
with a conditional probability of greater than 90%.

n also found that procedure-related mortality and length of hospital stay fav
ablation.

Comparison between thermal ablation, surgical resection

	Resection	Ablation	p-value
cedure-related mortality	2.1%	0%	N/A
n of hospital stay	4 days	1 day	< 0.001

esearchers also reported that the total number of adverse events ($p < 0$
ocal control (HR, 0.184; $p = 0.03$) also favored thermal ablation. Fina
found no differences regarding local (HR, 0.833; $p = 0.53$) and distan
ession-free survival (HR, 0.982; $p = 0.09$).

tudy drew praise from the Society of Interventional Radiology (SIR),
it "tremendous news" for patients worldwide. SIR congratulated the
chers for their "groundbreaking" research.

ventional radiologists are uniquely suited to offer thermal ablation du
extensive training in imaging, image-guided treatments, and clinical c
tated in a news release. "We hope the full data are published soon so
tionalize this treatment in the field, move the standard of care forward
patients new hope for not just treatment but recovery."

EWS | INTERVENTIONAL

ablation effective in women with breast cancer

mally invasive procedure called cryoablation that uses ice to freeze a
tumors has proven effective for women with large breast cancer tum
ng to a study presented March 27 at the Society of Interventional
ogy (SIR) meeting in Salt Lake City.

ding suggests the technique may provide a new treatment path for wo
e not candidates for lumpectomy, or surgical removal, noted Yolanda
interventional radiologist at Memorial Sloan Kettering Cancer Cent
ork City, and senior author of the study.

ry is still the best option for tumor removal, but there are thousands o
who, for various reasons, cannot have surgery," Bryce said, in a new
from SIR. "We are optimistic that this can give more women hope o
ent journeys."

lation uses imaging guidance typically with ultrasound or CT to loca
. An interventional radiologist then inserts small, needle-like probes i
o create an ice ball that surrounds the tumor and kills the cancer cells

s research suggests that when the procedure is combined with hormo
and radiation, patients can have nearly 100% of their tumors destroy
oted. To date, however, the treatment has been successfully used only
smaller than 1.5 cm.

earch was presented during the meeting's closing plenary session by J
D, a radiology resident at Weill Cornell Medicine. The study evaluate
ue in 60 patients with primary breast cancer tumors larger than 1.4 cm
or surgical candidates or who refused surgery. Patients underwent
ation between January 2017 and March 2023. Out of the 60 treated pa
nvasive ductal carcinoma, five patients had invasive lobular carcinom
atients had other histology. Tumor size ranged from 0.3 cm to 9 cm, w
size of 2.5 cm.

tment consisted of a freeze-thaw cycle ranging between 18 to 28 min
d by active thaw to remove the probes, which was performed with mi
dation, depending on the eligibility and preference of the patient. Pat
le to go home on the same day once the treatment was complete.

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and radiation, patients can have nearly 100% of their tumors destroy
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tion, depending on the eligibility and preference of the patient. Patien
go home on the same day once the treatment was complete.

ICAL NEWS | MRI

RI/ultrasound combination effective for treating rostate cancer

Madden Yee
21, 2024

lly invasive procedure that combines MRI and transurethral ultrasound ablation is effective for treating prostate

search presented March 20 at the Society of Interventional Radiology (SIR) meeting in Salt Lake City.

Steven Raman, MD, of the David Geffen School of Medicine at the University of California, Los Angeles, found

bbed MRI-guided transurethral ultrasound ablation (TULSA) and performed by interventional radiologists -- pr

urgery or radiation, showing a recovered continence rate of 92% at five-year follow-up.

ided therapy maximizes our ability to kill cancer cells while minimizing collateral damage to the prostate to ac

ate cancer treatment: full local cancer control while maintaining urinary continence and potency," Raman said i

lthcare public relations firm Reis Group.

state cancer treatments such as radiation therapy or surgery carry risk of side effects such as urinary incontinenc

aman and colleagues noted. The TULSA procedure consists of the insertion of a catheter-like device into the ure

he catheter is in place, MRI guides the positioning of 10 therapeutic ultrasound elements into the prostate. Inter

n use MR thermometry to monitor targeted tissue while heating it to more than 55° and limiting heat to nerves

same time, the investigators explained. TULSA can be performed as an outpatient or inpatient procedure under g

takes two to three hours, the team explained.

dy that included 115 men enrolled across 13 sites in five countries, all
ent the TULSA procedure, Raman's group found the following:

was undetectable on follow-up biopsy by 76% at one year after TULS
e in median prostate volume by 92% within one year and a decrease i
-specific antigen (PSA) from 6.3 ng/ml to 0.63 ng/ml at five years.

had a good side-effect profile when compared to surgery or radiation
therapy (the latter being ultrasound-guided high-intensity focused ult
or cryotherapy) demonstrating a recovered continence rate of 92% a
ed erectile function rate of 87% at five-year follow-up.

tudy cohort, 25 patients went on to undergo conventional treatment w
or radiation because of residual or new tumors, from which the resea
that failure of the TULSA procedure was related to calcifications betw
and the targeted prostate cancer, prompting "better monitoring of pros
, targeting and misalignment [for] improved detection and managem
eventable errors during the procedure," the group wrote.

ear follow-up demonstrates durable oncologic control, safety, and fun
tion after a single whole-gland TULSA procedure," Raman and colle
ed, noting that a randomized controlled trial comparing TULSA with
ctomy is underway.

WS | ULTRASOUND

US shows promise in treating prostate cancer

retto

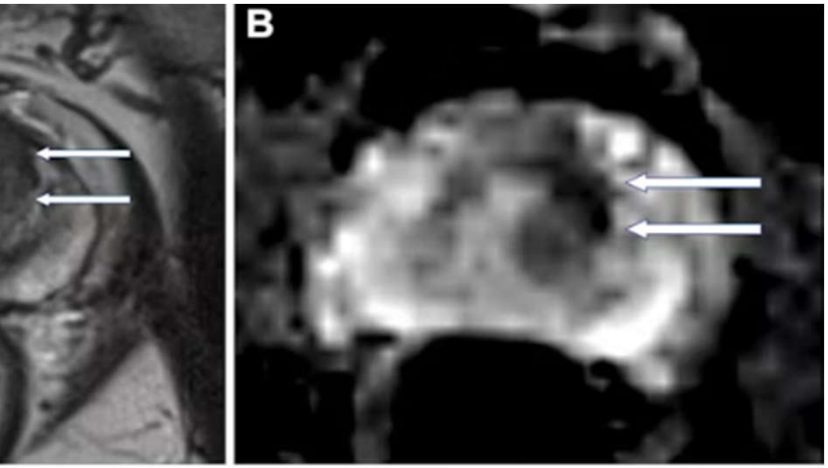
uided focused ultrasound (MRgFUS) therapy can successfully treat pr
for those at intermediate risk, a study published March 5
ology found.

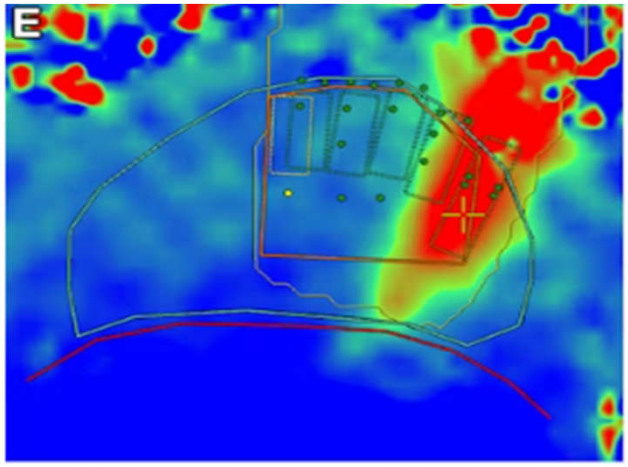
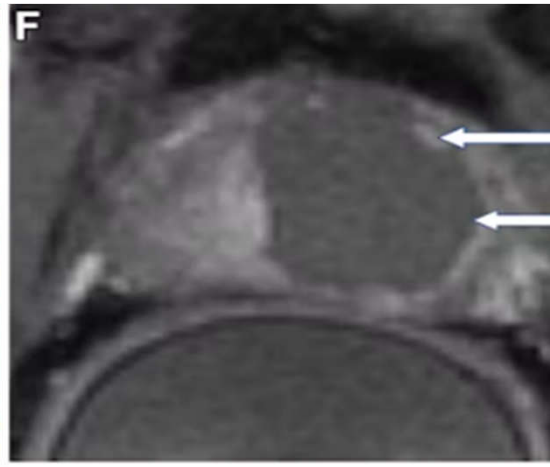
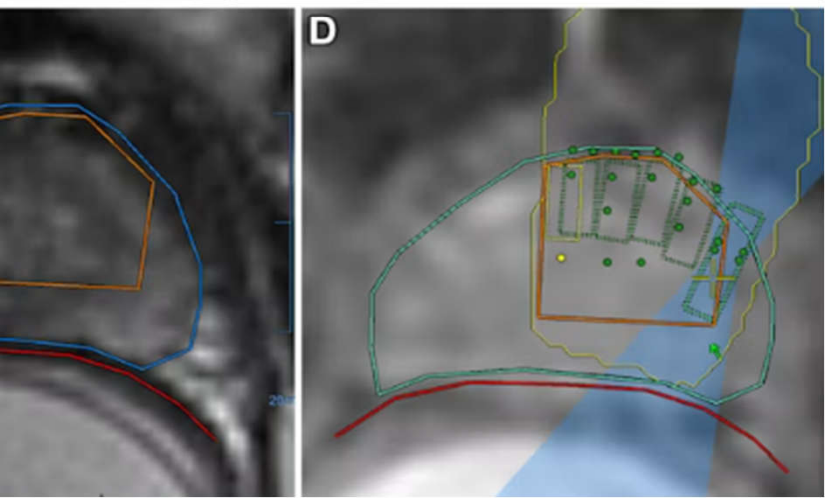
chers led by Sangeet Ghai, MD, from the University of Toronto in Ca
hat MRgFUS led to no adverse effects and negative follow-up results
fter treatment.

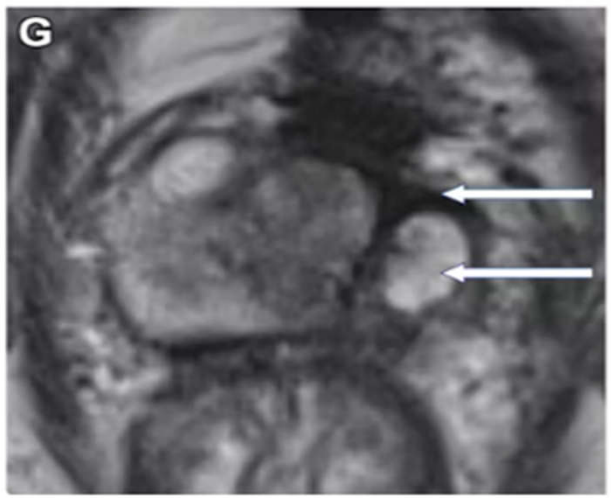
onally, there was no significant decline in quality of life per the valid
nnaires," Ghai and colleagues wrote.

US allows for clinicians and interventional radiologists to accurately t
ed areas deemed to be clinically significant, including for treating pro
Previous research also highlights that this method can preserve more
tissue. However, Ghai and co-authors noted that the long-term outco
US in prostate cancer treatment are not well known.

gle-center study, the team assessed the two-year oncological and func
es of men with intermediate-risk prostate cancer. Study participants
ent transrectal MRgFUS between 2016 and 2019. The team noted tha
l ablation volumes included 10-mm margins when possible.





biopsy-confirmed prostate cancer in a 56-year-old man. (A) Pretreatment axial T2-weighted fast sp
pparent diffusion coefficient map acquired with a 3T scanner show the tumor in the left transition z
tive 1.5-T MRI scan shows the contoured rectal wall (red line), prostate margin (blue outline), and
e outline). (D) Intraoperative MRI scan shows a focused ultrasound beam path (blue) overlaid on th
angular boxes show each sonication spot. (E) Thermal map obtained during treatment shows heat de
red and overlaid on the sonication spot. (F) Axial gadobutrol-enhanced MRI scan obtained immedi
ws the devascularized ablated volume (arrows). (G) Corresponding T2-weighted fast spin-echo 3T M
months after ablation shows fibrosis and volume loss in the left transition zone (arrows). Findings
ssue, negative for malignancy at the treatment site.

y participants also completed quality-of-life questionnaires at six weeks and at fiv
onths. Additionally, the team collected data regarding adverse events. To confirm
the researchers at 24 months performed multiparametric MRI as well as targeted
c biopsies.

y included 44 men with a median age of 67 years. Of the total, 36 study participan
up of 2, and eight had a grade group of 3. Both grade groups indicate intermediat
ere therapies should be used.

rchers highlighted the success of MRgFUS in the patients, reporting that treatmen
lly completed in all participants and no major adverse events were recorded. One
iopsy at 24 months.

s following treatment, 39 of the remaining 43 participants (91%) had no clinically
ancer at the treatment site and 36 participants (84%) had no cancer in the entire g

he team reported no changes in International Index of Erectile Function-15 score
onal Prostate Symptom Score during the two-year follow-up (p = 0.73 and 0.39, re
cates that the patients experienced no significant decline in quality of life followin
.

y authors highlighted that their results could help in widespread adoption of MRgl
tely selected patients.

ompanying editorial, David Woodrum, MD, PhD, from the Mayo Clinic in Roche
he study as having "excellent local control, lack of substantial development of can
e in the prostate, and no change in urinary or erectile function."

ly…reinforces the concept that accurate ablation monitoring can keep morbidity l
ntrol high," Woodrum wrote. "Overall, this study is an excellent representation of
ies of treatment expansion in patients with prostate cancer."