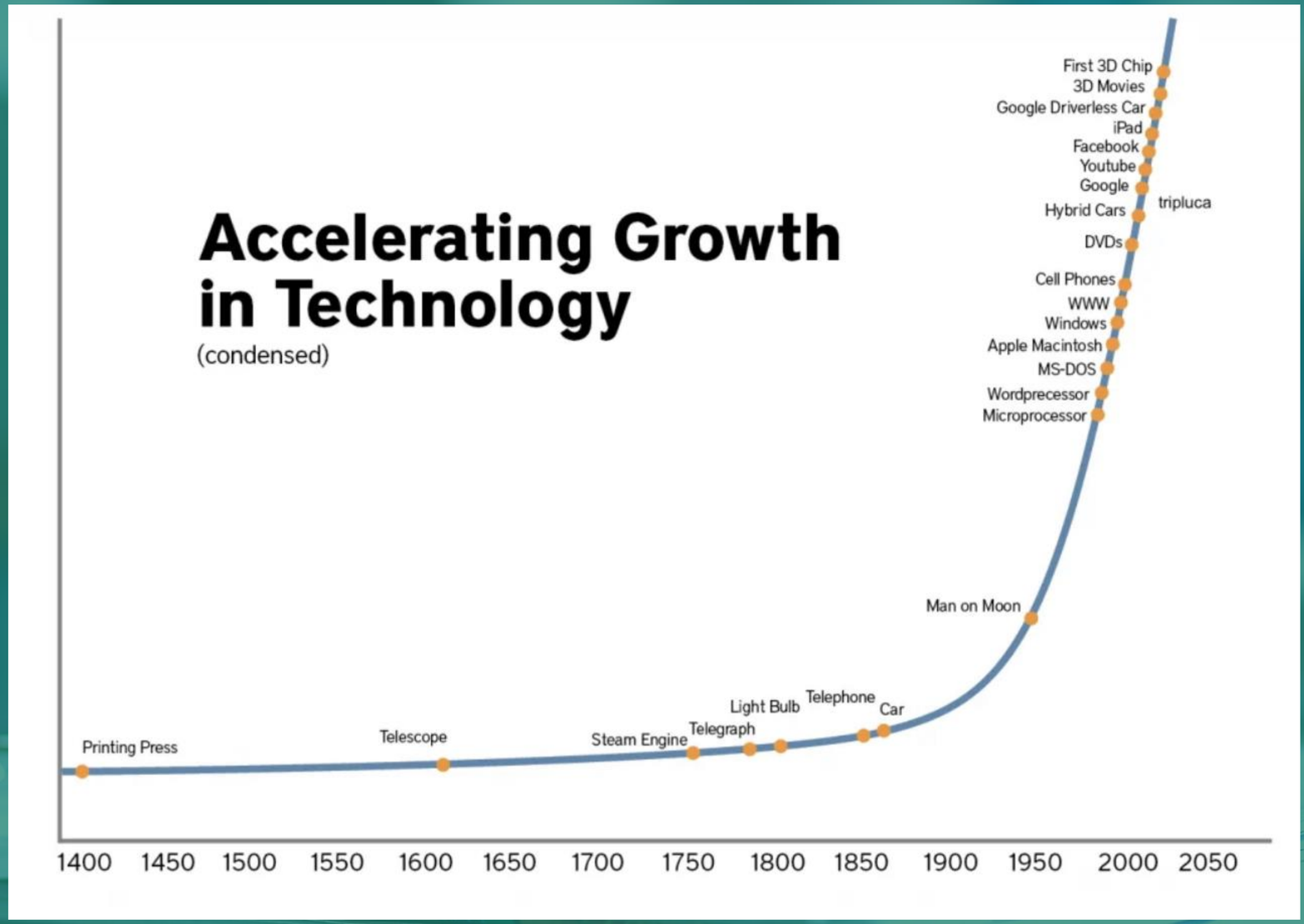
Ospedale Koelliker

IL TRATTAMENTO CHIRURGICO DELLE PATOLOGIE DEL GINOCCHIO

Dr. Gianmosè Oprandi


Accelerating Growth in Technology
(condensed)
First 3D Chip
3D Movies
Google Driverless Car
iPad
Facebook
Youtube
Google
Hybrid Cars
tripluca
DVDs
Cell Phones
WWW
Windows
Apple Macintosh
MS-DOS
Wordprecessor
Microprocessor
Man on Moon
Printing Press
Telescope
Steam Engine
Telegraph
Light Bulb
Telephone
Car
1400
1450
1500
1550
1600
1650
1700
1750
1800
1850
1900
1950
2000
2050

CHIRURGIA PROTESICA ROBOTICA

MEDICINA RIGENERATIVA

BIOMATERIALI

GONARTROSI – PROTESI DI GINOCCHIO
E
CHIRURGIA ROBOTICA

DATO CLINICO DI PARTENZA :
IL 20 % DEI PAZIENTI AI QUALI È STATA APPLICATA UNA PROTESI DI GINOCCHIO NON È SODDISFATTO DEL RISULTATO RAGGIUNTO

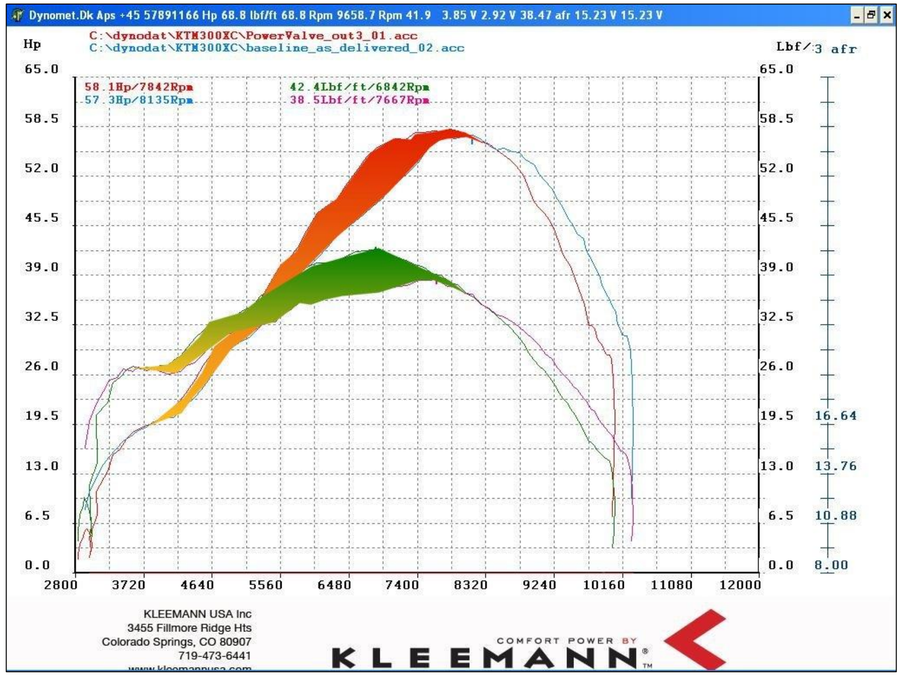
LA PROTESI DI GINOCCHIO
È UN PUZZLE DIFFICILE

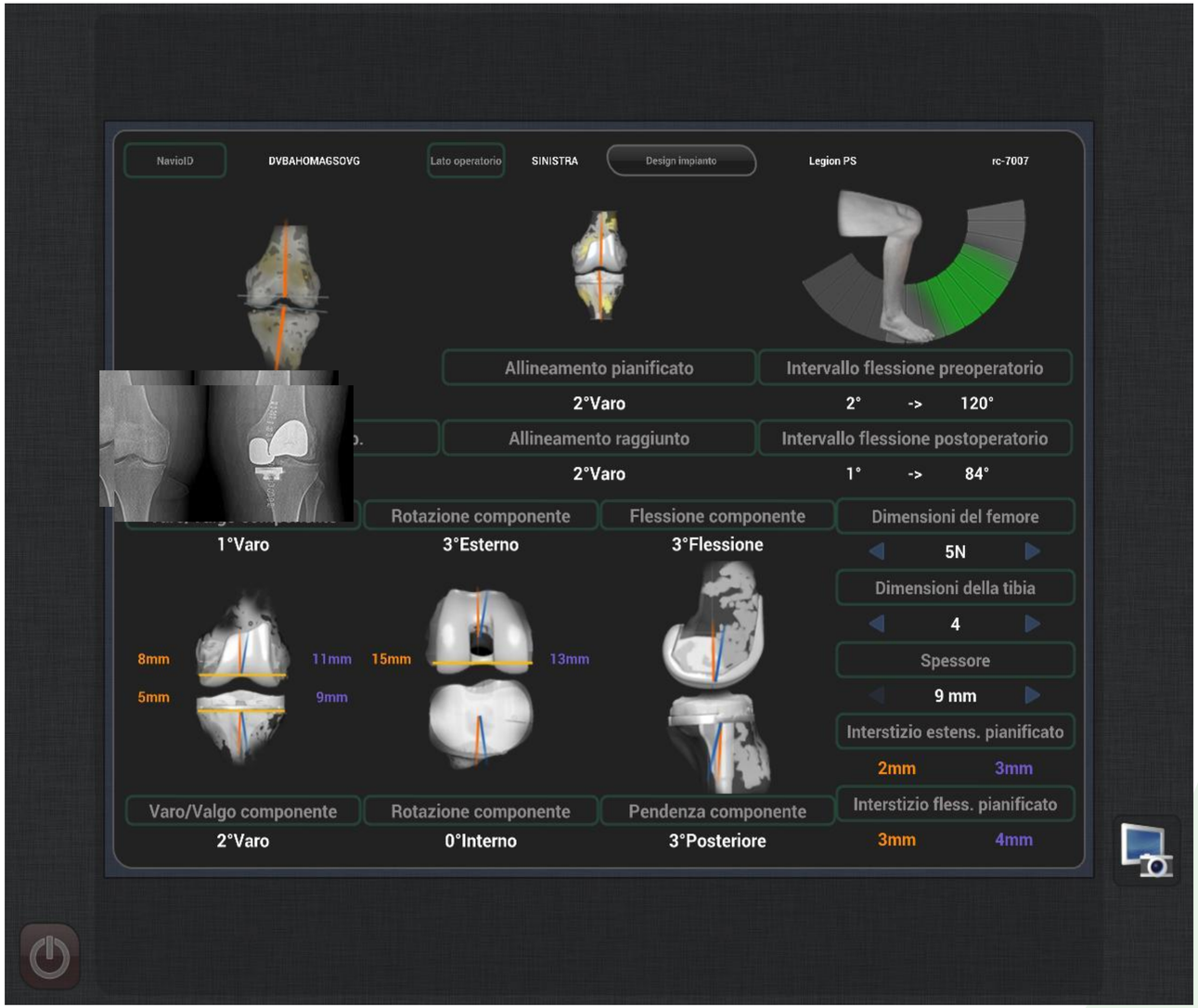
MOVIMENTO

STABILITÀ

COME AVVENIVANO LE SCELTE

COME AVVENGONO LE SCELTE





CHIRURGIA ROBOTICA

VANTAGGI

- MINI INVASIVITÀ
- MAGGIORE PRECISIONE
- RIDUZIONE DEL DOLORE
- RIDUZIONE DEL SANGUINAMENTO
- ALLINEAMENTO FUNZIONALE BASATO SU DATI
- PROTESI PARZIALI PIÙ FREQUENTI
- PROTESI PAZIENTE SPECIFICHE
- NUOVI IMPIANTI

ALLINEAMENTO PROTESI DI GINOCCHIO

Journal of Orthopaedics 34 (2022) 111–115

Contents lists available at ScienceDirect

Journal of Orthopaedics

journal homepage: www.elsevier.com/locate/jor

Comparison of patient reported outcomes after robotic versus manual total knee arthroplasty in the same patient undergoing staged bilateral knee arthroplasty

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ARTICLE INFO

Keywords:
Total knee arthroplasty
Knee
Robotics
Satisfaction
Outcomes

ABSTRACT

Background: Robotic-assisted total knee arthroplasty (RATKA) has been proven to improve accuracy of component positioning and reducing alignment target outliers. However, the clinical benefit of robotics is often debated. Recent studies have shown reduced pain and faster recovery in the immediate post-operative period and may be associated with improved PROMs and satisfaction. The aim of this study was to assess PROMs and satisfaction in a unique patient population undergoing bilateral staged TKA to compare manual (MTKA) and RATKA in the same patient.

Methods: 55 patients underwent bilateral staged TKA, performed by a single surgeon at a single institute. Patients who underwent TKA for the first knee with manual technique and RATKA for the second side, were eligible for inclusion in the study. Primary outcome assessed was the Oxford Knee Score and secondary outcomes included the Forgotten Joint Score (FJS), patient satisfaction, mean duration for independent ambulation after TKA, and patient perspectives on recovery evaluated with a questionnaire.

Results: Both RATKA and MTKA were associated with comparable PROMs. Though RATKA was associated with improved joint perception (Mean FJS after MTKA surgery was 70.3 (SD = 10.66) and significantly lower than the mean FJS after RATKA (73, SD = 10.95, p-value < 0.01), but the difference was not clinically relevant. A higher proportion of patients were more likely to be very satisfied or satisfied after RATKA. A significant proportion of patients felt the knee operated with RATKA was less painful and felt more natural compared to MTKA at final follow-up (p < 0.01). Majority of patients would undergo RATKA again and recommend robotic-TKA to others.

Conclusion: Robotic-assisted surgery was associated with improved patient satisfaction, faster independent ambulation compared to manual techniques. PROMs however, were comparable without clinically significant differences. Patients preferred robotic-assisted surgery, with a significantly higher proportion perceiving knee operated by RATKA felt more natural.

1. Introduction

Total Knee Arthroplasty (TKA) is one of the most common surgical procedures for the management of knee osteoarthritis, with significant improvements in patient activity and reduction in pain. However, despite advances in implant design, understanding of native knee kinematics, peri-operative pain management and early-rehabilitation protocols, 15–20% of patients report dissatisfaction after TKA.[1]

Clinical outcomes after TKA are dependent on surgical factors, patient factors and implant factors. Studies have established the role of robotics in improving component positioning and limb alignment,[2–4] and more recent studies have reported reduced pain and improved clinical outcomes with the use of robotic-assisted techniques.[5,6]

Song et al. previously published their report on differences in clinical

Abbreviations: RATKA, Robotic-Assisted Total Knee Arthroplasty; MTKA, Manual Total Knee Arthroplasty.

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https://doi.org/10.1016/j.jor.2022.08.014
Received 19 July 2022; Received in revised form 10 August 2022; Accepted 11 August 2022
Available online 19 August 2022

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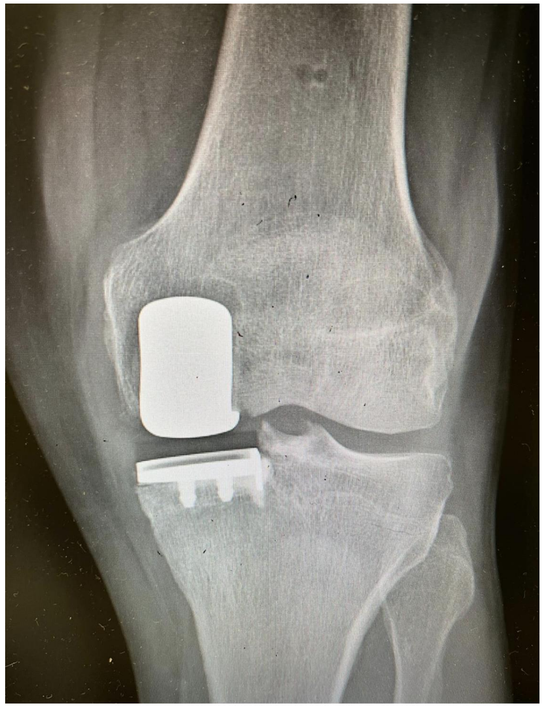
TKA ROBOTIC BETTER THAN MANUAL

INTERVENTO PMG NAVIO FLUSSO DECISIONALE



MEDICINA RIGENERATIVA

CELLULE STAMINALI DA TESSUTO ADIPOSO

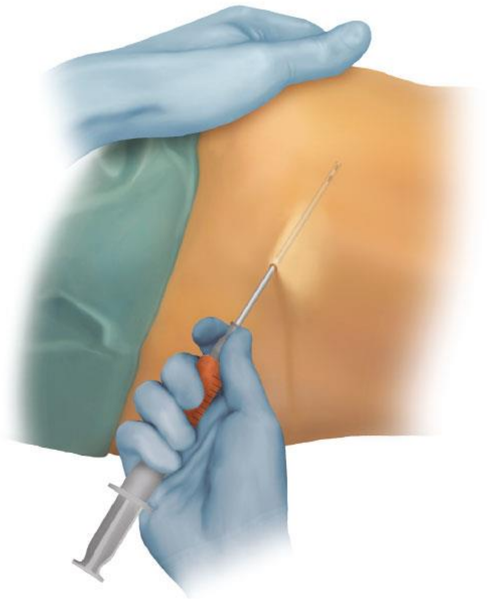
- tessuto adiposo lipoaspirato destinato ad impianto autologo
- strumento aggiuntivo alle terapie tradizionali per supportare la naturale riparazione dei tessuti danneggiati da diversi tipi di patologie

- Associato a interventi chirurgici riparativi

APPLICAZIONI

OSTEOARTRITI
LESIONI CONDRALI ARTICOLARI DI GINOCCHIO
TENDINOPATIE

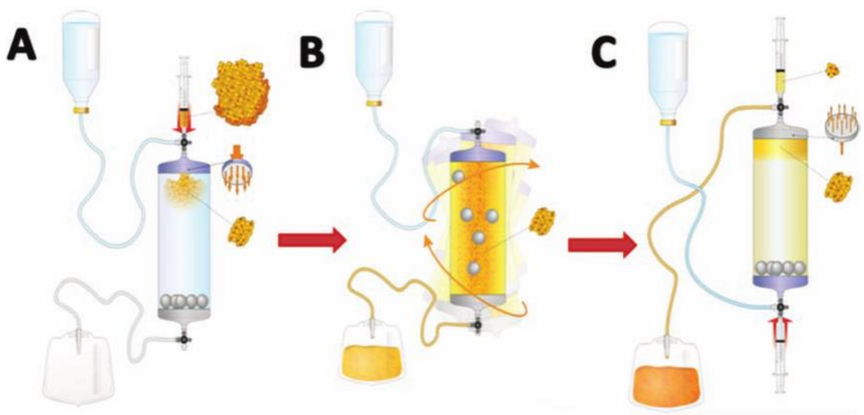
CELLULE STAMINALI DA TESSUTO ADIPOSO



PRELIEVO

Questa fase può essere eseguita in anestesia generale o loco regionale. Previa infiltrazione di una soluzione composta da fisiologica, adrenalina, lidocaina, si procede al prelievo del tessuto adiposo. Entrambe le procedure avvengono attraverso l'utilizzo di una serie di cannule a punta smussa, collegate a siringhe

CELLULE STAMINALI DA TESSUTO ADIPOSO



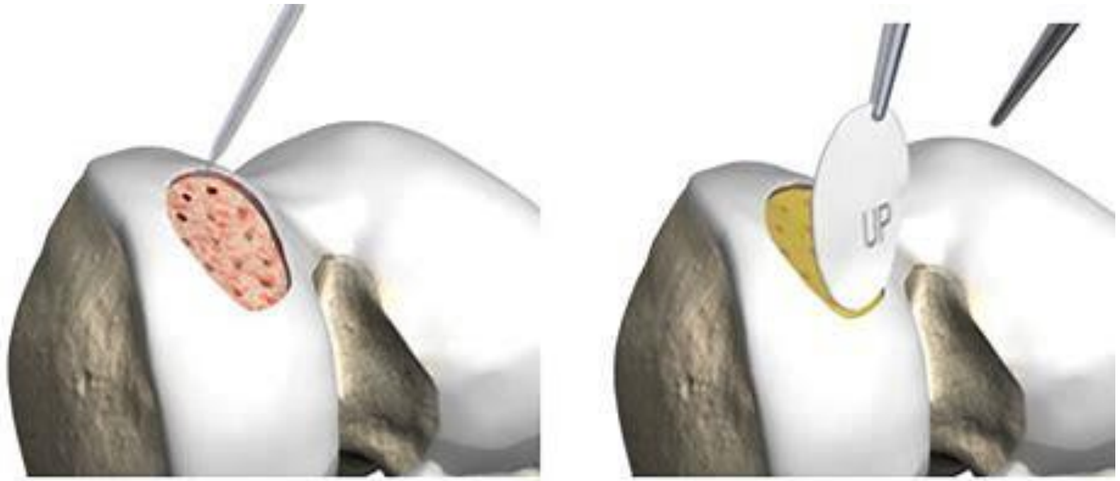
PROCESSAZIONE

Il tessuto prelevato è processato immediatamente sul campo operatorio all'interno del sistema. Questa fase permette una graduale riduzione dei cluster adiposi fino ad ottenere un prodotto particolarmente fluido e privo delle componenti oleose ed ematiche pro-infiammatorie

BIOMATERIALI

AUTOLOGOUS MATRIX-INDUCED CHONDROGENESIS (AMIC)

- LESIONI CARTILAGINEE FOCALI



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GRAZIE DELL'ATTENZIONE